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Visitor Services Project

Great Sand Dunes National Monument and Preserve

Visitor Study
Summer 2002

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Great Sand Dunes National Monument and Preserve Report Summary

- This report describes the results of a visitor study at Great Sand Dunes National Monument and Preserve during June 23-29, 2002. A total of 479 questionnaires were distributed to visitors. Visitors returned 364 questionnaires for a 76.0% response rate.
- This report profiles Great Sand Dunes National Monument and Preserve visitors. A separate appendix contains visitors' comments about their visit. This report and the appendix include summaries of those comments.
- Twenty-nine percent of visitor groups were groups of two; 36% were in groups of three or four. Sixty-nine percent of the visitors were family groups. Forty-percent of visitors were aged 31-55 years and 27% were aged 15 or younger.
- United States visitors were from Colorado (38%), Texas (13%), California (5%), 39 other states and Washington, D.C. Nearly 4% of all visitors were international, with 27% from Germany, 15% from Holland, and another 15% from England.
- Most visitors (91%) had visited the park once in the last 12 months. In the lifetime, 63% of visitors visited the park once and 16% visited the park 2 times. Ninety percent of visitor groups indicated no group members had disabilities or impairment that limited their ability to visit Great Sand Dunes National Monument and Preserve. Of those with disabilities or impairments, 39% encountered access/service problems. Seventy-seven percent of visitors spent less than one day at the Great Sand Dunes National Monument and Preserve.
- On this visit, the most common activities were climbing the dunes (80%), visiting the visitor center (74%), and scenic driving or photography (56%).
- The most used sources of information about the park prior to this visit were friends or relatives (46%), previous visits (44%), and maps and brochures (42%). Of those who obtained the information prior to this visit, 88% indicated that they received all needed information.
- The most commonly visited locations in the monument by hiking or horseback riding were High Dunes (67%) and Visitor center Loop Trail (29%). The most commonly visited locations in the monument by automobile this visit were the Dunes parking lot (91%) and visitor center (84%)
- Prior to this visit, 38% of visitor groups were aware of the Great Sand Dunes National Preserve. Seventy-seven percent of visitor groups were not aware of the newly designated wilderness area.
- Most visitor groups (73%) entered the monument only once during their stay in the area. The most common type of lodging used by visitor group inside the monument was the campground/trailer park. Seventy-three percent of visitor groups stayed in a lodge, motel, cabin, rented condo/home, or B&B in the area (within 1 hour outside monument).
- Denver, CO; Colorado Springs CO; and Alamosa, CO were the places that most visitor groups spent the night before arriving and night after leaving Great Sand Dunes National Monument and Preserve.
- Most visitor groups (93%) rated the overall quality of visitor services at Great Sand Dunes National Monument and Preserve as "very good" or "good." No visitor groups rated the overall quality of visitor services as "very poor."

For more information about the Visitor Services Project, please contact the University of Idaho Cooperative Park Studies Unit; phone (208) 885-7863.

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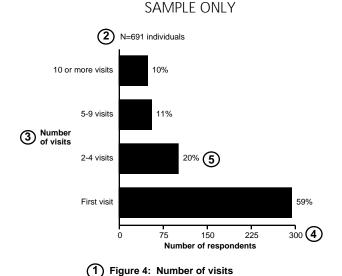
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INTRODUCTION

This report describes the results of a study of visitors at Great Sand Dunes National Monument and Preserve (NM&PRES). This visitor study was conducted June 23-29, 2002 by the National Park Service (NPS) Visitor Services Project (VSP), part of the Park Studies Unit at the University of Idaho.

The report is organized into four sections. The *Methods* section discusses the procedures and limitations of the study. The *Results* section provides summary information for each question in the questionnaire and includes a summary of visitor comments. An *Additional Analysis* section is included to help managers request additional analyses. The final section includes a copy of the *Questionnaire*. The separate appendix includes comment summaries and visitors' unedited comments.

Most of this report's graphs resemble the example below. The large numbers refer to explanations following the graph.



- 1: The Figure title describes the graph's information.
- 2: Listed above the graph, the 'N' shows the number of visitors responding and a description of the chart's information. Interpret data with an 'N' of less than 30 with **CAUTION!** as the results may be unreliable.
- 3: Vertical information describes categories.
- 4: Horizontal information shows the number or proportions in each category.
- 5: In most graphs, percentages provide additional information.

METHODS

Questionnaire design and administration

The questionnaire for this visitor study was designed using a standard format that has been developed in previous Visitor Services Project studies. Some of the questions were comparable with VSP studies conducted at other parks. Other questions were customized for Great Sand Dunes NM&PRES.

Interviews were conducted with, and questionnaires were distributed to, a sample of visitors who arrived at Great Sand Dunes NM&PRES during the period from June 23-29, 2002.

Visitor groups were greeted, briefly introduced to the purpose of the study, and asked to participate. If visitors agreed, an interview, lasting approximately two minutes, was used to determine group size, group type, and the age of the adult who would complete the questionnaire. These individuals were then given a questionnaire and asked their names, addresses and telephone numbers in order to mail them a reminder/thank you postcard. Visitor groups were asked to complete the questionnaire during or after their visit and then return it by mail.

Two weeks following the survey, a reminder/thank you postcard was mailed to all participants. Replacement questionnaires were mailed to participants who had not returned their questionnaires four weeks after the survey. Seven weeks after the survey, second replacement questionnaires were mailed to visitors who still had not returned their questionnaires.

Data analysis

Returned questionnaires were coded and the information was entered into a computer using a standard statistical software package—Statistical Analysis System (SAS). Frequency distributions and cross-tabulations were calculated for the coded data, and responses to open-ended questions were categorized and summarized.

This study collected information on both visitor groups and individual group members. Thus, the sample size ("N"), varies from figure to figure. For example, while Figure 1 shows information for 360 visitor groups, Figure 3 presents data for 1,268 individuals. A note above each graph specifies the information illustrated.

Sample size, missing data and reporting errors

Occasionally, a respondent may not have answered all of the questions, or may have answered some incorrectly. Unanswered questions result in missing data and cause the number in the sample to vary from figure to figure. For example, although 364 questionnaires were returned by Great Sand Dunes National Monument and Preserve visitors, Figure 1 shows data for only 360 respondents.

Questions answered incorrectly due to carelessness, misunderstanding directions, and so forth turn up in the data as reporting errors. These create small data inconsistencies.

Like all surveys, this study has limitations that should be considered when interpreting the results.

- 1. It is not possible to know whether visitor responses reflect actual behavior. This disadvantage applies to all such studies and is reduced by having visitors fill out the questionnaire soon after they visit the park.
- 2. The data reflect visitor use patterns of visitors to the selected sites during the study period of June 23-29, 2002. The results do not necessarily apply to visitors during other times of the year.
- 3. Caution is advised when interpreting any data with a sample size of less than 30, as the results may be unreliable. Whenever the sample size is less than 30, the word "CAUTION!" is included in the graph, Figure or table.

Weather conditions during the visitor study were typical of June in the Great Sand Dunes NM&PRES area, with warm, sunny days, and the occasional thunderstorm and winds. Smoke from forest fires in Arizona and near Durango obscured the Sangre de Cristo Mountains on some days.

Limitations

Special conditions

RESULTS

Visitors contacted

At Great Sand Dunes NM&PRES, 493 visitor groups were contacted, and 479 of these groups (97%) accepted questionnaires. Questionnaires were completed and returned by 364 visitor groups, resulting in a 76.0% response rate for this study.

Table 1 compares age and group size information collected from the total sample of visitors contacted with the information from those who actually returned questionnaires. Based on the variables of respondent age and visitor group size, non-response bias was judged to be slightly significant for group size. The group sizes reported by actual respondents were higher than the group sizes reported during the initial interview. This may be due to underreporting of group size during the initial interview or that visitors may have interpreted the questions differently. Group size data should be treated with some caution, and other data that may differ by group size should be examined carefully.

Table 1: Comparison of total sample and actual respondents

Variable	Total sample		Actual respondents	
	<u>N</u>	Avg.	<u>N</u> '	Avg.
Age of respondents	478	39.7	359	44.0
Group size	479	4.2	360	4.3

Demographics

Figure 1 shows visitor group sizes, which ranged from one person to 50 people. Twenty-nine percent of visitor groups consisted of two people, while 16% consisted of three people and another 20% consisted of four people.

Sixty-nine percent of visitor groups were made up of family members, 11% were made up of friends, and 9% traveled with their families and friends (see Figure 2). Groups listing themselves as "other" for group type included youth groups, school groups, spouses, and dance workshop groups.

Forty percent of the visitors were in the 31-55 age group (see Figure 3). Another 27% of visitors were in the 15 years or younger age group.

Visitors were asked to list the number of visits they had made to the park including this visit during the past 12 months and in their lifetime. Ninety-one percent of visitors indicated they had visited only once in the past 12 months, while about 9% said they had visited more than once (see Figure 4). During the lifetime, 63% had visited once, and 28% had visited between two and four times (see Figure 5).

Most respondents (90%) said that no group members had disabilities or impairments that affected their visit to Great Sand Dunes NM&PRES. Of visitors with disabilities or impairments, 69% indicated mobility problems, hearing problems (8%), and visual problems (4%), as shown in Figure 6. "Other" disabilities or impairment included food poisoning, heat stroke, heart problem, and cystic fibrosis. Of those who listed disabilities or impairments, 39% encountered access/service problems (see Figure 7). Those access/service problems included not being able to access the dunes, not being able to climb the dunes, and not being able to walk in hot weather.

International visitors to Great Sand Dunes NM&PRES comprised 4% of the total visitation. The countries most often represented were Germany (27%), Holland (15%) and England (15%), as shown in Table 2. The largest proportions of United States visitors were from Colorado (38%), Texas (13%), and California (5%). Smaller proportions of U.S. visitors came from another 22 states, and Washington, D.C. (see Map 1 and Table 3).

Demographics (continued)

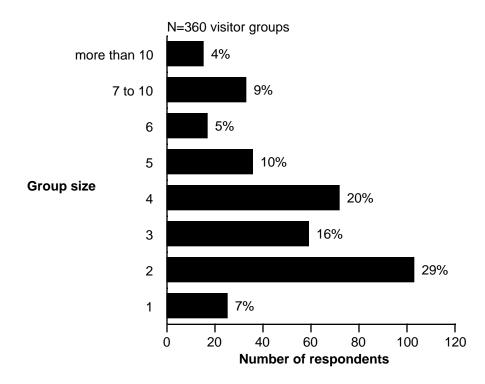


Figure 1: Visitor group sizes

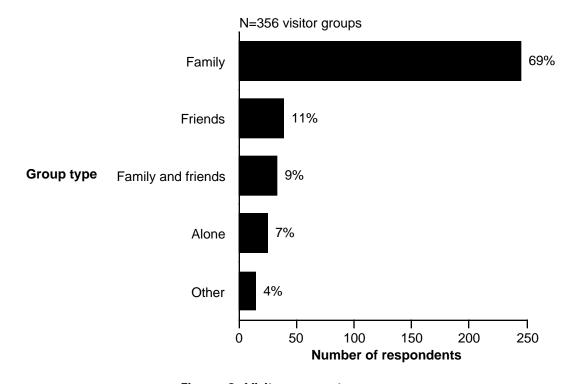


Figure 2: Visitor group types

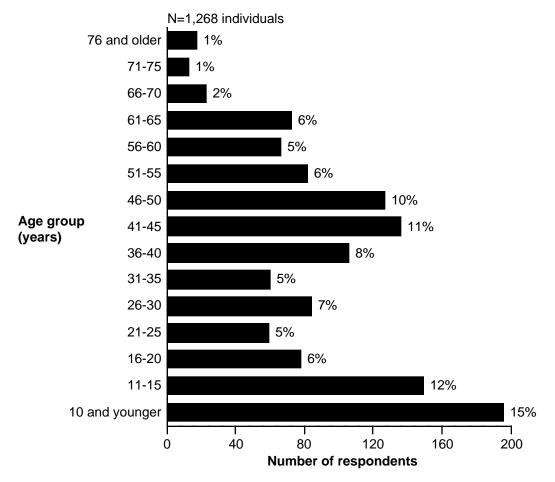


Figure 3: Visitor ages

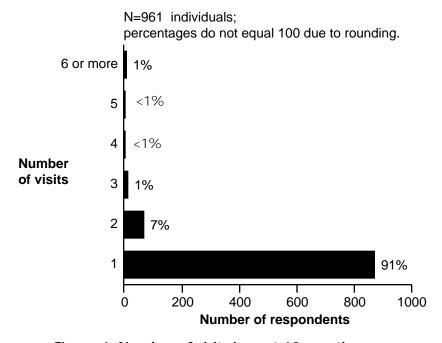


Figure 4: Number of visits in past 12 months

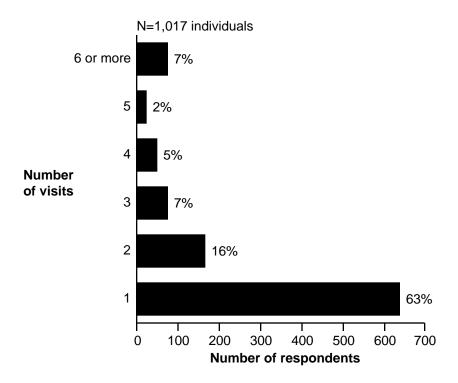


Figure 5: Number of visits during lifetime

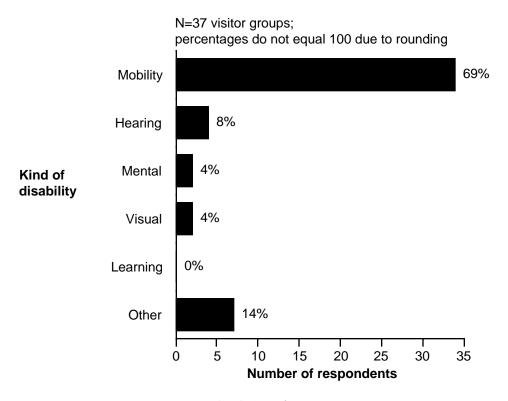


Figure 6: Visitor disabilities/impairments

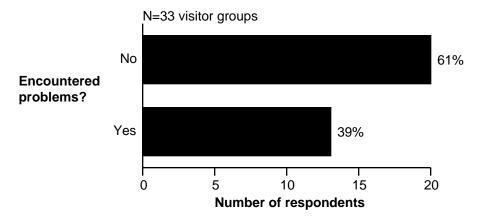
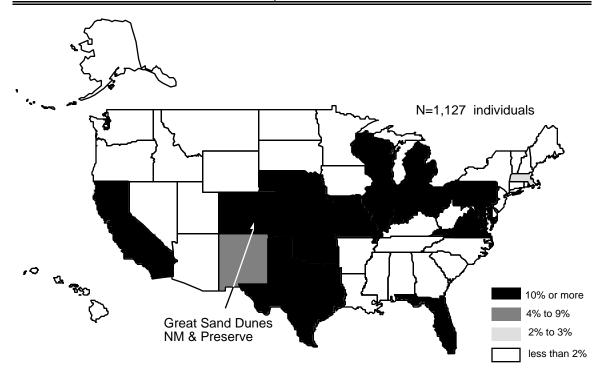


Figure 7: Visitor access/service problems in park for visitors with disabilities or impairments

Table 2: International visitors by country of residence percentages do not equal 100 due to rounding

Country	Number of individuals	Percent of international visitors	Percent of total visitors
		N=41 individuals	N=1,168 individuals
Germany	11	27	1%
England	6	15	<1%
Holland	6	15	<%
Australia	4	10	<1%
Canada	3	7	<1%
Thailand	3	7	<1%
Denmark	2	5	<1%
New Zealand	2	5	<1%
South Korea	2	5	<1%
Korea	1	2	<1%
Spain	1	2	<1%



Map 1: Proportion of United States visitors by state of residence

Table 3: United State visitors by state of residence percentages do not equal 100 due to rounding

·			<u> </u>
State	Number of	Percent of U.S.	Percent of total
	individual	visitors	visitors
Oalamada	400	N=1,127 individuals	
Colorado	423	38	36
Texas	142	13	12
California	61	5	5
New Mexico	47	4	4
Missouri	44	4	4
Oklahoma	34	3	3
Pennsylvania	27	2	2
Illinois	26	2	2
Wisconsin	25	2	2
Ohio	23	2	2
Indiana	20	2	2
Kansas	19	2	2
Nebraska	18	2	2
Massachusetts	17	2	1
Florida	16	1	1
New Jersey	16	1	1
Michigan	15	1	1
lowa	14	1	1
Tennessee	14	1	1
Minnesota	13	1	1
22 other states and Washington, D.C.	112	10	10

Visitor groups were asked to identify the primary language that their group prefers to speak and write. Most groups (97%) identified English as their primary language; another 2% preferred German as primary language (see Figure 8). "Other" primary languages included Korean, Chinese and group members speak different languages.

Demographics (continued)

Most visitors (95%) identified themselves as "not Hispanic or Latino" for ethnic background (see Figure 9). Most visitors (91%) identified their racial background as White (see Figure 10). Two percent of visitors identified themselves as Asian, another 2% identified themselves as Native American and smaller percentages reported other racial backgrounds. Six percent of visitor groups did not wish to answer this question.

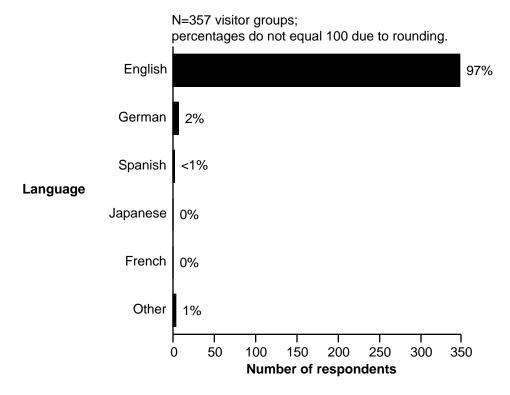


Figure 8: Primary language

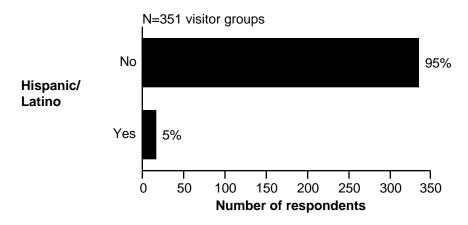


Figure 9: Visitor ethnicity

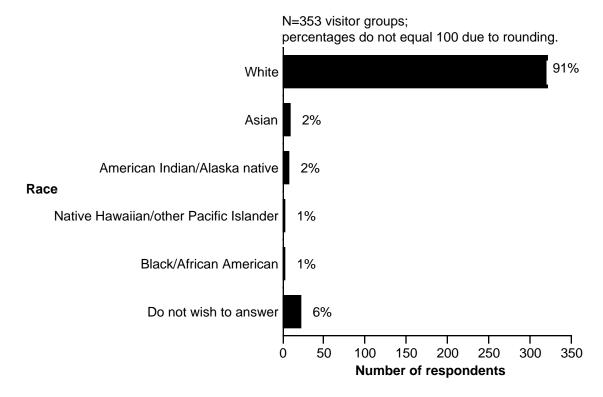


Figure 10: Visitor race

Visitor groups were asked how much time they spent at Great Sand Dunes NM&PRES. Seventy-seven percent of visitor groups spent less than 24 hours and another 23% spent one day or more in the park. As shown in Figure 11, among those who spent less than 24 hours 40% spent up to 2 hours, 37% spent between 2 to 4 hours, and 22% spent more than 4 hours.

Visitors who spent one day or longer were asked to indicate the number of days they spent in Great Sand Dunes NM&PRES. The length of stay ranged from one to sixteen days. Thirty-five percent of visitors spent one day in the park, 38% spent two days, and 27% spent three days or more (see Figure 12).

Length of stay

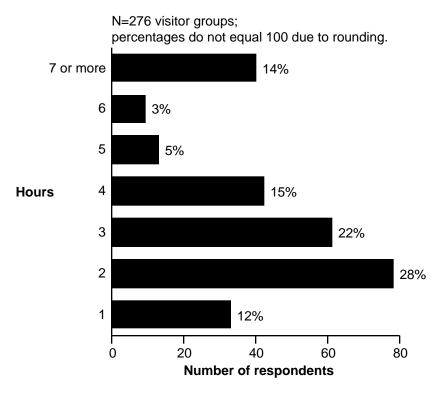


Figure 11: Hours spent at Great Sand Dunes NM&PRES by visitors who spent less than 24 hours

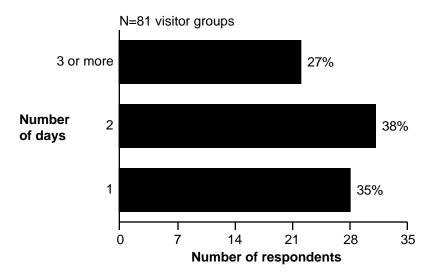


Figure 12: Days spent in Great Sand Dunes NM&PRES

Visitor groups were asked a series of questions about their use of lodging while visiting Great Sand Dunes NM&PRES and the surrounding area. Figure 13 shows that 53% of visitor groups did not spend the night away from home within a one-hour drive of Great Sand Dunes NMP while on their visit. Forty-eight percent of visitors spent the night away from home while on their visit.

Those visitors that spent the night away from home were then asked to provide the number of nights they stayed inside, as well as outside the park (within a 1-hour drive). Thirty-six percent of visitor groups did not spend any nights inside the park, 33% spent 1 night, and 27% spent 2 nights (see Figure 14). Figure 15 shows that 62% of visitor groups spent one night outside the park (within one-hour drive). Eighteen percent spent 2 nights and 13% spent from 3 to 7 nights.

Figure 16 shows the types of lodging used inside the monument: 86% of visitor groups used the campground/trailer park and 7% used the backcountry campground. "Other" types of lodging used inside the monument were scout camp and San Luis Lake. Figure 17 shows proportions of types of lodging used outside the monument within a one-hour drive including lodge, motel, cabin, etc. (73%); campground/trailer park (22%), and residence of friends or relatives (4%). "Other" types of lodging used outside the monument included local residences, and the retreat center in Crestone.

Visitor groups were asked the number of times they entered Great Sand Dunes NM&PRES during their stay in the area. Most visitor groups (73%) entered the park one time, 16% entered two times, and 8% entered three times (see Figure 18).

Table 4 shows the number of visitor groups who stayed in each town/city prior to arriving at Great Sand Dunes NM&PRES. Table 5 shows the number of visitor groups who stayed in each town/city after leaving the monument. Denver, Colorado Springs and Alamosa (all in Colorado) were the most often listed cities.

Lodging/park entries

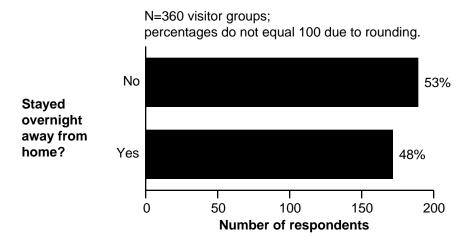


Figure 13: Overnight stays away from home this visit

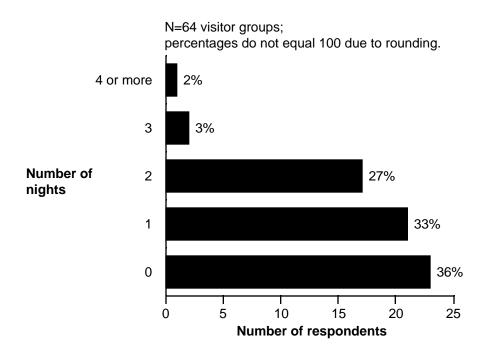


Figure 14: Number of nights spent inside the monument

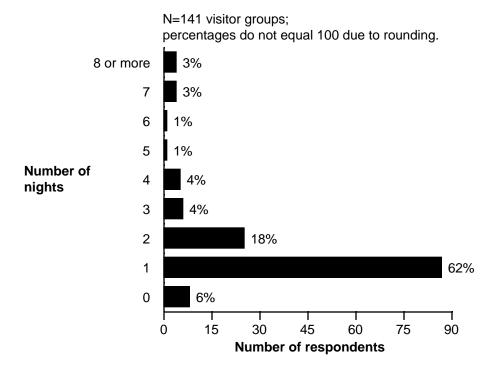


Figure 15: Number of nights spent outside the monument (within 1 hour drive)

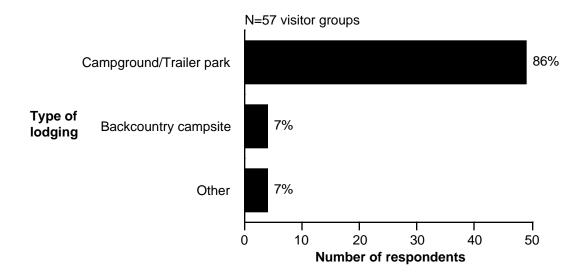


Figure 16: Type of lodging used inside the monument

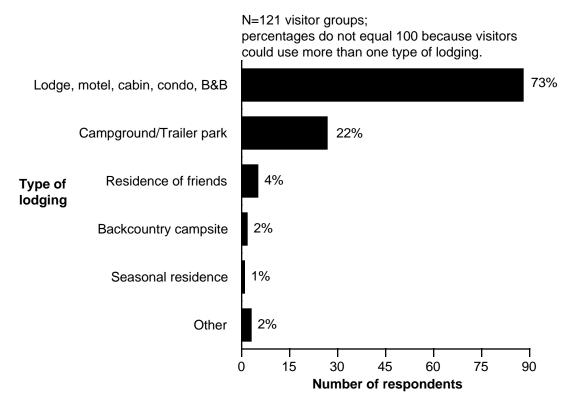


Figure 17: Type of lodging used outside the monument (within one-hour drive)

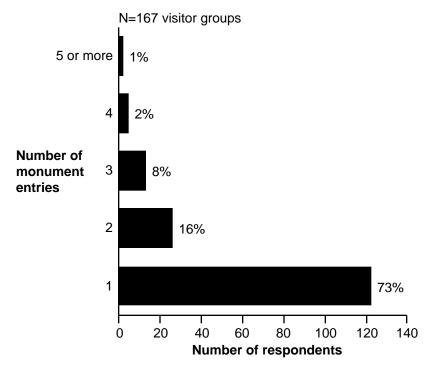


Figure 18: Number of monument entries during stay in the area

Table 4: Places visitors spent the night prior to arriving at Great Sand Dunes NM&PRES

N= 308 comments

Place	Number of times mentioned
Colorado Springs, CO	23
Denver, CO	19
Alamosa, CO	17
Durango, CO	16
Pueblo, CO	16
Walsenburg, CO	15
Santa Fe, NM	10
Salida, CO	9
Pagosa Springs, CO	8
Canon City, CO	7
Taos, NM	7
Albuquerque, NM	5
Boulder, CO	5
Monte Vista, CO	5
Westcliffe, CO	5
Moffat, CO	4
Red River, NM	4
Center, CO	3
Cripple Creek, CO	3 3 3
La Veta, CO	3
Manitou Springs, CO	3
Mesa Verde, CO	3
Trinidad, CO	3 2
Aztec, NM	
Blanca, CO	2
Boise City, OK	2 2
Chimayo, NM	2 2
Clayton, MN	2
Crestone, CO	2 2
Cuchara, CO Espanola, NM	2
Evergreen, CO	2
Fairview, OK	2
Farmington, NM	2
Fort Garland, CO	2
Garden City, KS	2
Gulnave, CO	2
Lake City, CO	2
Leadville, CO	2 2
Littleton, CO	2
Ouray, CO	
Parker, CO	2 2 2 2 2
Questa, NM	2
Raton, NM	2
San Louis State Park, CO	_ 2
Tucumcari, NM	2
Woodland, CO	2
Other places	60

Table 5: Places visitors spent the night after leaving Great Sand Dunes NM&PRES

N=351 comments

N=35 CC	omments
Places	Number of times mentioned
Denver, CO	30
Alamosa, CO	23
Colorado Springs, CO	20
Durango, CO	20
Taos, NM	17
Pagosa Springs, CO	12
Pueblo, CO	10
South Fork, CO	10
Canon City, CO	8
Fort Collins, CO	8
Mesa Verde, CO	8
Salida, CO	8
Boulder, CO	7
Monte Vista, CO	6
Santa Fe, NM	6
Buena Vista, CO	5
Trinidad, CO	5
Albuquerque, NM	4
Crestone, CO	4
Gunnison, CO	4
Littleton, CO	4
Centennial, CO	3
Cortez, CO	3
Grand Canyon, AZ	3
Manitou Springs, CO	3
Parker, CO	3
Thornton, CO	3
Walsenburg, CO	3
Westcliffe, CO	3
Beulah, CO	2
Blanca, CO	2
Burlington, CO	2
Chachera, CO	2
Dodge City, CO	2
Highlands Ranch, CO	2
La Junta, CO	2
La Veta, CO	3 3 3 3 3 3 2 2 2 2 2 2 2 2 2 2 2
Moffat, CO	2
Red River, NM	_ 2
Saguache, CO	2 2
Woodland Park, CO	2
Other places	84
Strict Piaces	3 .

Figure 19 shows the proportions of visitor groups that participated in a variety of activities at Great Sand Dunes NM&PRES. The most common activities were climbing dunes (80%), visiting visitor center (74%), and scenic driving or photography (56%). "Other" activities included dune buggy tours, meeting people, playing in sand, flying kites, enjoying wilderness experience, enjoying solitude, skywatching in the evening, riding horses, and dancing in the dunes as part of an improvisational dance workshop.

Activities

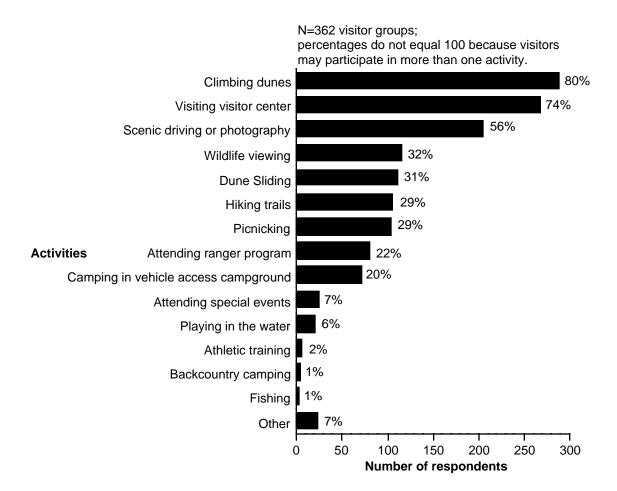


Figure 19: Visitor activities

Sources of information

Visitor groups were asked to indicate the sources from which they had received information about Great Sand Dunes NM&PRES prior to their visit. Five percent of visitor groups received no information prior to their visits. Of those visitor groups who received information, the most common sources were friends/relatives/word of mouth (46%), previous visits (44%), and maps/brochures (42%), as shown in Figure 20. "Other tourist site" included Royal Gorge as a source of information about Great Sand Dunes NM&PRES. "Other national parks" included Mesa Verde, Zion, and Bryce Canyon National Parks; Chimney Rock National Historic Site, Scotts Bluff, and Petroglyph and White Sands National Monument.

For those who received information prior to this visit, 88% indicated that their sources provided all needed information, but 12% indicated they did not receive enough information (see Figure 21). The additional information that visitors needed included maps of hiking trails, hiking conditions, need for personal protection, availability of facilities and campsite, fees/costs, and directions to and from highway exits. "Other" sources of information used prior to this visit included American Automobile Association, hiking guides, National Park Pass, college class, signs on highway, environmental groups, Colorado state website, postcards, living in the area, and flew over in an airplane.

Visitors were also asked what sources of information they would prefer to use for a future visit. As shown in Figure 22, the preferable sources of information for a future visit were the National Park Service website (56%), previous visits (47%), and maps/brochure (42%). "Other" sources of information that visitor groups prefer to use prior to a future visit included National Park Passport and American Automobile Association.

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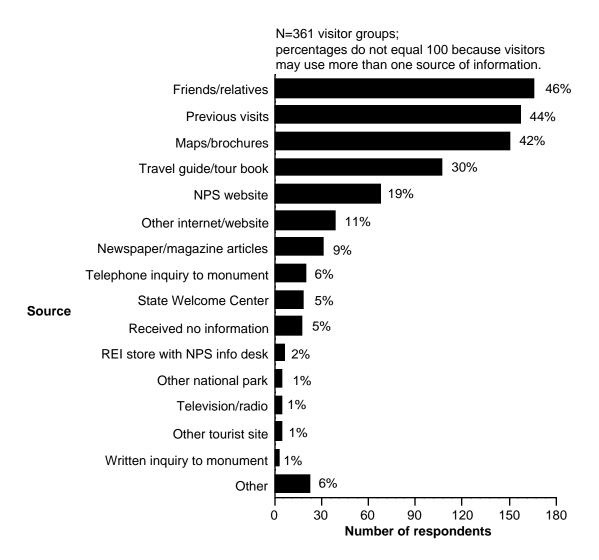


Figure 20: Sources of information used by visitors prior to this visit

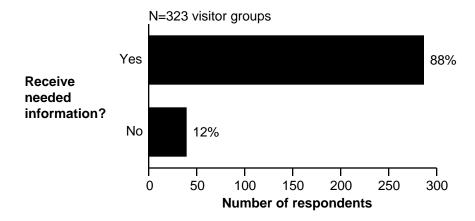


Figure 21: Received needed information?

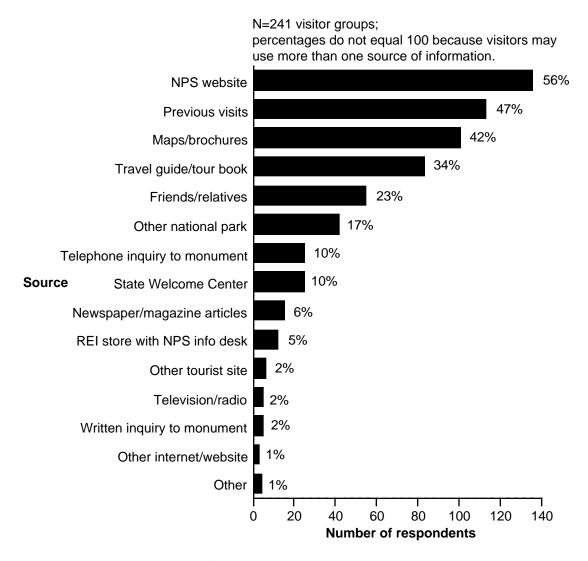


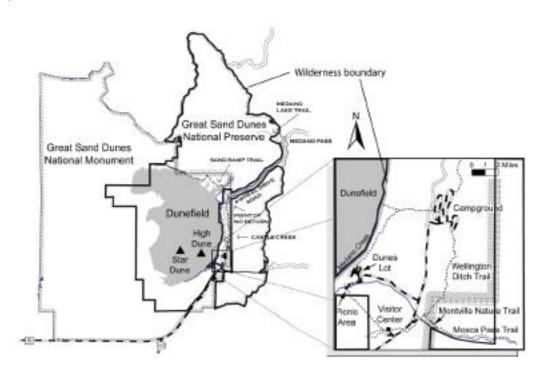
Figure 22: Preferred sources of information for future visits

Visitors were asked whether they went hiking or horseback riding on this visit to Great Sand Dunes NM&PRES. Fifty-five percent of visitor groups indicated they went hiking or horseback riding this visit, while another 45% did not. Those who went hiking or horseback riding were asked to indicate the sites that they accessed. Map 2 was provided to help visitors locate the sites that they visited. As shown in Figure 23, the sites that visitors most accessed by hiking or horseback riding were High Dunes (67%), Visitor Center Loop Trail (29%), and Medano Creek bed (23%).

If this was not the first visit to Great Sand Dunes NM&PRES, visitors were also asked to indicate the sites that they accessed by hiking or horseback riding on previous visits. Most visitors accessed High Dunes (75%), Visitor Center Loop Trail (28%), and Medano Creek bed (28%) by hiking or horseback riding (see Figure 24).

Other sites accessed by hiking or horseback riding included Zapata Falls, Center of Dunes, Garden Creek, North Arrasta, Morris Gulch, Sawmill, Castle, Medano Pass, Sand Creek, north from campground, and a picnic area.

Sites accessed by hiking or horseback riding



Map 2: Great Sand Dunes NM&PRES sites

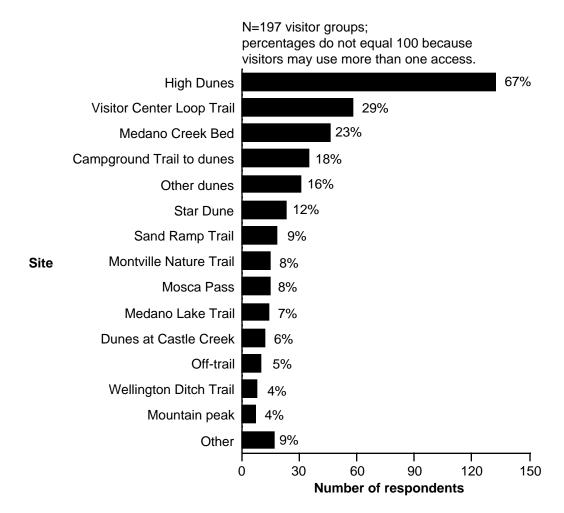


Figure 23: Sites accessed by hiking or horseback riding this visit

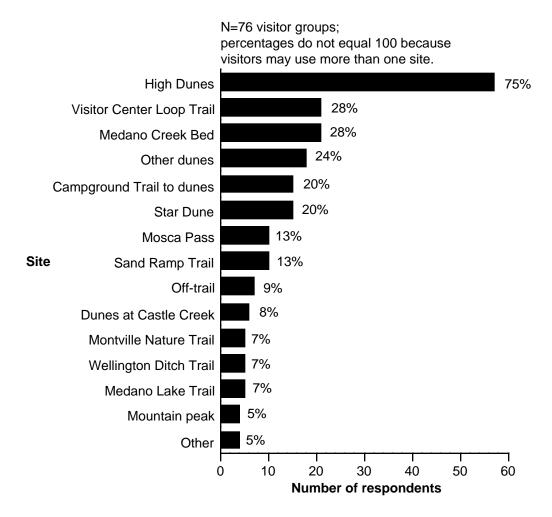


Figure 24: Sites accessed by hiking or horseback riding previous visits

Sites accessed by automobile

Map 2 was also provided to visitors so they could indicate sites accessed by automobile on this visit. As shown in Figure 25, the sites that were accessed the most by automobile were the dunes parking lot (91%), visitor center (84%), and dunes picnic area (28%).

Furthermore, if this was not the first visit to Great Sand Dunes NM&PRES, visitors were asked to identify sites that they accessed by automobile on previous visits. These sites included the dunes parking lot (89%), followed by the visitor center (74%), as shown in Figure 26. Another 28% of visitors accessed the dunes picnic area by automobile on their previous visits. "Other" sites included Zapata Falls, Wellington Ditch Trail, Campground, Morris Gulch, Denton Springs, Mosca Pass, California Peak, and Horse Canyon.

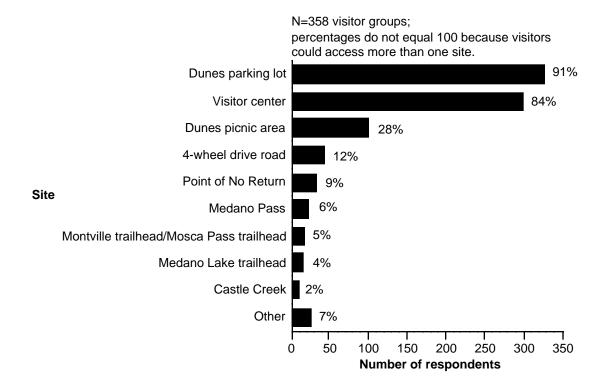


Figure 25: Sites accessed by automobile this visit

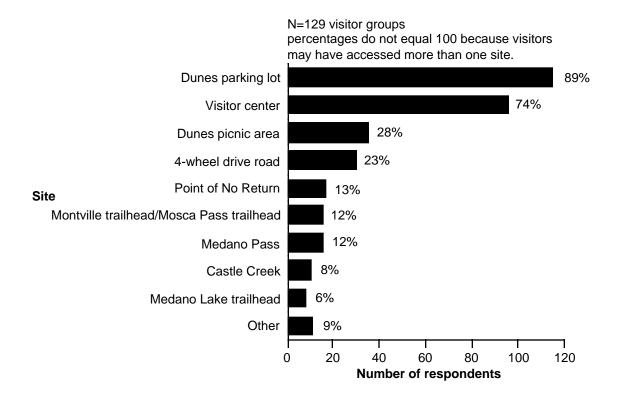


Figure 26: Sites accessed by automobile previous visits

Visitor awareness of Great Sand Dunes NM&PRES The "Great Sand Dunes National Park and Preserve Act" was signed into law in November 2000. As a result, the former national monument was tripled in size, and Great Sand Dunes National Preserve was created just east of the dunes in order to protect the entire natural system affecting the Great Sand Dunes. Visitor groups were asked "Prior to this visit, were you aware of the Great Sand Dunes National Preserve?" Most visitor groups (58%) said they were not aware of the Great Sand Dunes National Preserve, 38% were aware, and 4% were "not sure" (see Figure 27)

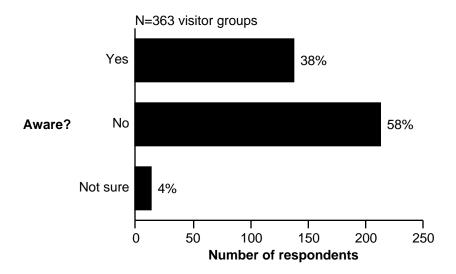


Figure 27: Visitor awareness of the Great Sand Dunes National Preserve

Visitors were asked "Prior to this visit, were you aware that most of the area around and including all of the sand dunes and extending down to Medano Creek is designated as part of the National Wilderness Preservation System?" As shown in Figure 28, most visitor groups (77%) were not aware that Great Sand Dunes is a part of the National Wilderness Preservation System, 17% were aware and 6% were "not sure."

Visitor awareness of Great Sand Dunes as part of National Wilderness Preservation System

Visitor groups were also asked, "Did this wilderness designation affect your experience?" Thirty percent of visitor groups said they did not visit the wilderness area. Forty-seven percent said the wilderness designation did not affect their experience, and 11% said it affected their experience (see Figure 29).

Finally, visitor groups were asked to rate the importance of solitude to their visit in the designated wilderness area. Seventy percent of visitor groups rated solitude as "very important" or "important", 8% rated as "not important", and 4% had no opinion about the importance of solitude to their visit in the designated area, as shown in Figure 30.

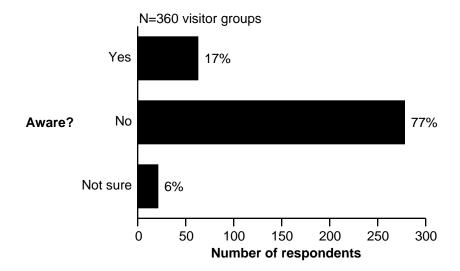


Figure 28: Visitors' awareness of the Great Sand Dunes as part of the National Wilderness Preservation System

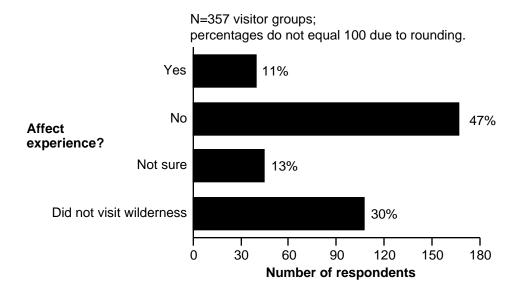


Figure 29: Wilderness affect visitor experience?

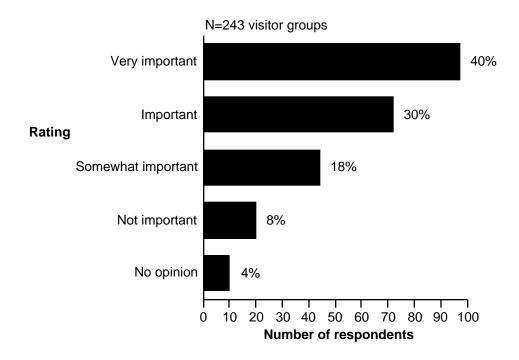


Figure 30: Important of solitude in visiting designated wilderness area

Due to the expansion resulting from the "Great Sand Dunes National Park and Preserve Act" there may be increased visitor opportunities in the newly designated areas of Great Sand Dunes National Monument (most activities in the National Preserve have remained the same as before the expansion). Visitor groups were asked, "What facilities/uses would you consider appropriate for these newly designated areas of the monument?" As shown in Figure 31, most visitor groups considered foot access (79%), paved road access to some areas (53%), and wilderness campsites (50%) appropriate uses/facilities for the newly designated areas. "Other" appropriate uses visitors groups suggested included primitive campsites, handicapped boardwalk to dunes, restroom/shower/laundry, picnic area shaded by trees, children's activity area, 4x4 ATV trails, dune buggy access area, other lodging options, restaurant/snack bar, and visitor center.

Opinions about appropriate uses/facilities for the newly designated areas

Visitor groups were also asked, "In your opinion, what is most important about the newly designated Great Sand Dunes Preserve and expanded National Monument?" Table 6 shows comments from 219 visitor groups.

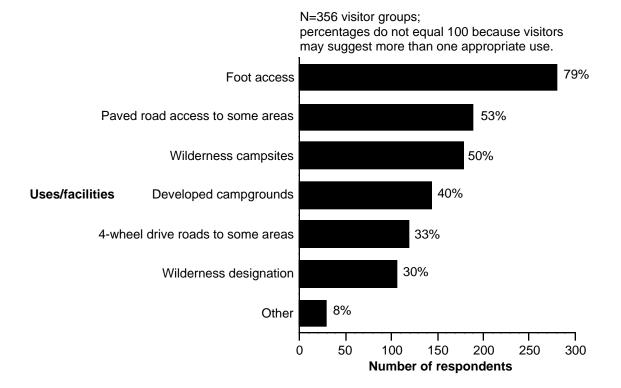


Figure 31: Appropriate uses/facilities for the newly designated areas

Table 6 : Most important feature of the newly designated Great Sand Dunes NP and expanded National Monument

N= 232 comments; visitor groups may have more than one comment.

Comments	Number of times mentioned
PRESERVATION/CONSERVATION/PROTECTION	
Preservation of natural resources	46
Protection of the area and limit development	29
Protection of greater area around the dunes	21
Protection of entire natural system	16
Maintain natural state of dunes	9
Preservation of the integrity of the dune system	7
Preservation for future generations	6
Conservation	3
More land available for wildlife	3
Wilderness ecology preservation	2
Other comments	2
ACCESSIBILITY/RECREATIONAL OPPORTUNITIES	
Accessibility for public	24
Add varieties to recreational opportunities	11
Limited access by vehicles	6
Expanded area for exploration	4
Better access to Sand Creek and other areas previously on private property	y 2
Access that is closer to dunes	2
Accessible to hikers	2
Better access to aged and disabled persons	2
Four-wheel drive roads to other areas	2
Other comments	2
EDUCATIONAL OPPORTUNITIES	
Provide educational information about the history and evolution of dunes	9
Greater awareness of significance of dunes as national treasure	6
Education center	4
Survey endemic species	2
Other comments	2
GENERAL IMPRESSIONS	
Beautiful areas	3
Chance to upgrade facilities	2
Potential to improve water situation	2
Other comment	1

Visitors were asked "How did this visit to Great Sand Dunes National Monument and Preserve fit into your travel plans. Most visitor groups (63%) indicated that Great Sand Dunes NM&PRES was one of several destinations (see Figure 32). Another 21% indicated it was their primary destination, and 16% said Great Sand Dunes NM&PRES was not a planned destination.

Travel plans

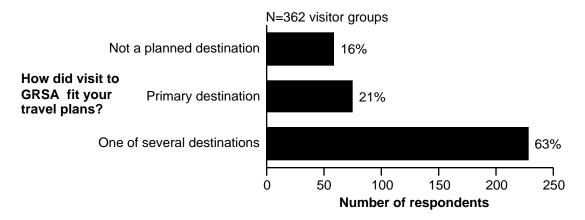


Figure 32: Great Sand Dunes NM&PRES as part of travel plans

Other visited destinations

Visitor groups were asked to list the other places besides Great Sand Dunes NM&PRES that they visited during this trip. Twenty-seven percent of visitors indicated they did not visit any places other than Great Sand Dunes NM&PRES, while 73% indicated they visited other places. For those who visited other places besides Great Sand Dunes NM&PRES, 52% visited other national parks, 21% visited Zapata Falls, 17% visited Alligator farm, and another 16% visited area hot springs (see Figure 33). Other destinations included Chimney Rock, Beaver Creek Ski Area, San Juan River, Chimayo, Seven Falls, Salida, Crestone, Spashlash, Taos Pueblo, Mount Blanca, Mount Evan, Philmont Scout Ranch, and Cripple Creek.

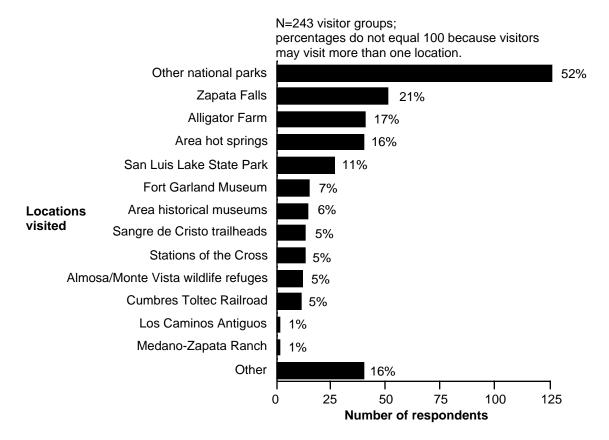


Figure 33: Other destinations

Great Sand Dunes NM&PRES interpretive programs and exhibits discuss the following topics: formation of dunes, ancient human history, modern human history, the role of water, and plants and animals. Visitors were asked whether they learned about these topics during their visit to the park. Most visitor groups (69%) of visitor groups were interested in learning some of the topics, 29% were not interested in learning, and another 2% were "not sure," as shown in Figure 34.

Interpretive topics learned/Level of understanding improvement

Among visitors who learned about the topics provided by interpretive programs and exhibits, most visitors (84%) learned about the formation of dunes, 67% learned about the role of water, and another 63% learned about plants and animals (see Figure 35). Visitor group were then asked to indicate how much their level of understanding of each topic improved during this visit. Table 7 shows the comparative level of improvement on all topics. Figures 36 to 40 show the knowledge improvement level on each topic. Among visitors who learned about the formation of dunes, most visitors (52%) indicated their knowledge improved "a lot." Thirty-eight percent of visitors who learned about the role of water indicated their knowledge improved "a lot." Some visitor groups found their knowledge about modern human history (9%) and ancient human history (4%) did not improve at all.

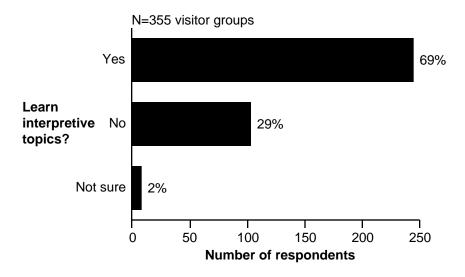


Figure 34: Learn about interpretive topics on this visit?

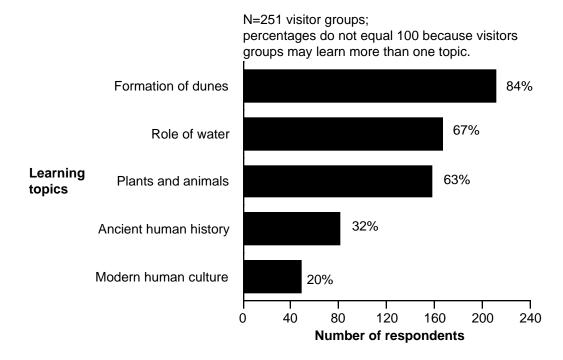


Figure 35: Topic learned on this visit

Table 7: Level of understanding improvement

N=243 visitor groups; percentages may not equal 100 due to rounding.

Learning topics	Level of understanding improvement									
	Not at all		A little		Somewhat		A lot		Don't know	
	N	%	N	%	N	%	N	%	N	%
Formation of dunes	1	1	24	12	70	35	105	52	2	1
Ancient human history	3	4	21	28	31	41	15	20	5	7
Modern human cultures	4	9	11	23	18	38	10	21	4	9
Role of water	0	0	22	14	76	48	60	38	2	1
Plants and animals	0	0	34	23	72	48	43	28	2	1

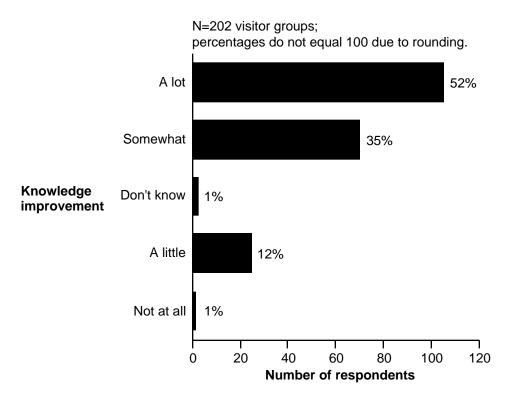


Figure 36: Level of knowledge improvement: Formation of dunes

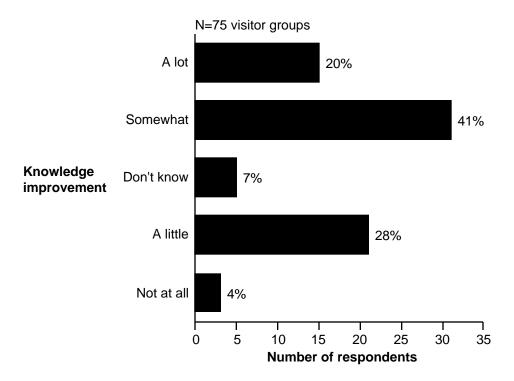


Figure 37: Level of knowledge improvement: Ancient human history

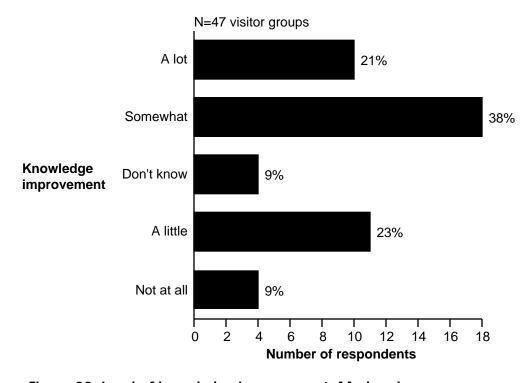


Figure 38: Level of knowledge improvement: Modern human cultures

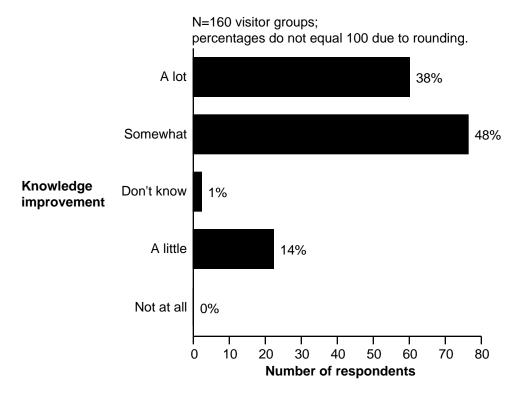


Figure 39: Level of knowledge improvement: Role of water

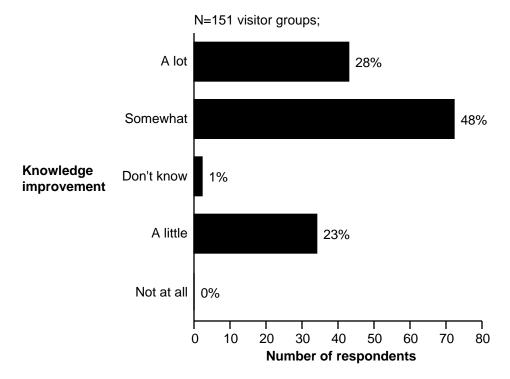


Figure 40: Level of knowledge improvement: Plants and animals

Opinions about safety

Visitors were asked "On this visit did you or members of your group have any specific safety concerns in Great Sand Dunes National Monument and Preserve?" As shown in Figure 41, most visitors (84%) were not concerned about safety in Great Sand Dunes NM&PRES, while 16% indicated some concerns about safety. If the answer was yes, visitor groups were asked about their concerns. Table 8 shows the comments from 58 visitor groups.

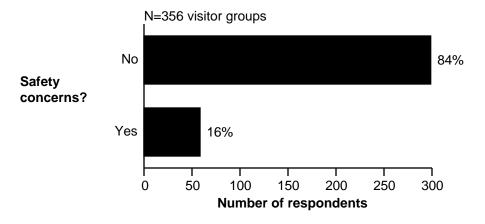


Figure 41: Safety concerns

Table 8: Safety concerns

N=80 comments, some visitor groups gave more than one comment.

Dehydration 14 What to do if I could not hike back 11 Heat stroke/exhaustion 12 Lightening 7 Thunderstorm 6 Bears 4 Air quality due to forest fire 4 Sunburn 3 Fire safety 3 Leg injury 3 Getting stuck in sand on four-wheel drive road 2 Blowing sand 2 Get lost on the way back from dunes 2 Other unfriendly four-wheel driver 1 Bees sting 1 Vampire bats 1 No noticeable first aid/EMT facilities 1 Dog off leash 1	Comments	Number of times mentioned
Heat stroke/exhaustion 12 Lightening 7 Thunderstorm 6 Bears 4 Air quality due to forest fire 4 Sunburn 3 Fire safety 3 Leg injury 3 Getting stuck in sand on four-wheel drive road 2 Blowing sand 2 Get lost on the way back from dunes 2 Other unfriendly four-wheel driver 1 Bees sting 1 Vampire bats 1 No noticeable first aid/EMT facilities 1 Dog off leash 1	Dehydration	14
Lightening 7 Thunderstorm 6 Bears 4 Air quality due to forest fire 4 Sunburn 3 Fire safety 3 Leg injury 3 Getting stuck in sand on four-wheel drive road 2 Blowing sand 2 Get lost on the way back from dunes 2 Other unfriendly four-wheel driver 1 Bees sting 1 Vampire bats 1 No noticeable first aid/EMT facilities 1 Dog off leash 1	What to do if I could not hike back	11
Thunderstorm Bears Air quality due to forest fire Sunburn Fire safety Leg injury Getting stuck in sand on four-wheel drive road Blowing sand Get lost on the way back from dunes Other unfriendly four-wheel driver Bees sting Vampire bats No noticeable first aid/EMT facilities Dog off leash	Heat stroke/exhaustion	12
Bears 4 Air quality due to forest fire 4 Sunburn 3 Fire safety 3 Leg injury 3 Getting stuck in sand on four-wheel drive road 2 Blowing sand 2 Get lost on the way back from dunes 2 Other unfriendly four-wheel driver 1 Bees sting 1 Vampire bats 1 No noticeable first aid/EMT facilities 1 Dog off leash 1	Lightening	7
Air quality due to forest fire Sunburn Fire safety Leg injury Getting stuck in sand on four-wheel drive road Blowing sand Get lost on the way back from dunes Other unfriendly four-wheel driver Bees sting Vampire bats No noticeable first aid/EMT facilities Dog off leash	Thunderstorm	6
Sunburn 3 Fire safety 3 Leg injury 3 Getting stuck in sand on four-wheel drive road 2 Blowing sand 2 Get lost on the way back from dunes 2 Other unfriendly four-wheel driver 1 Bees sting 1 Vampire bats 1 No noticeable first aid/EMT facilities 1 Dog off leash 1	Bears	4
Fire safety Leg injury 3 Cetting stuck in sand on four-wheel drive road Blowing sand 2 Get lost on the way back from dunes 2 Other unfriendly four-wheel driver 1 Bees sting 1 Vampire bats No noticeable first aid/EMT facilities 1 Dog off leash	Air quality due to forest fire	4
Leg injury 3 Getting stuck in sand on four-wheel drive road 2 Blowing sand 2 Get lost on the way back from dunes 2 Other unfriendly four-wheel driver 1 Bees sting 1 Vampire bats 1 No noticeable first aid/EMT facilities 1 Dog off leash 1	Sunburn	3
Getting stuck in sand on four-wheel drive road 2 Blowing sand 2 Get lost on the way back from dunes 2 Other unfriendly four-wheel driver 1 Bees sting 1 Vampire bats 1 No noticeable first aid/EMT facilities 1 Dog off leash 1	Fire safety	3
Blowing sand 2 Get lost on the way back from dunes 2 Other unfriendly four-wheel driver 1 Bees sting 1 Vampire bats 1 No noticeable first aid/EMT facilities 1 Dog off leash 1	Leg injury	3
Get lost on the way back from dunes 2 Other unfriendly four-wheel driver 1 Bees sting 1 Vampire bats 1 No noticeable first aid/EMT facilities 1 Dog off leash 1	Getting stuck in sand on four-wheel drive road	2
Other unfriendly four-wheel driver 1 Bees sting 1 Vampire bats 1 No noticeable first aid/EMT facilities 1 Dog off leash 1	Blowing sand	2
Bees sting 1 Vampire bats 1 No noticeable first aid/EMT facilities 1 Dog off leash 1	Get lost on the way back from dunes	2
Bees sting 1 Vampire bats 1 No noticeable first aid/EMT facilities 1 Dog off leash 1	Other unfriendly four-wheel driver	1
No noticeable first aid/EMT facilities 1 Dog off leash 1		1
Dog off leash 1	Vampire bats	1
	No noticeable first aid/EMT facilities	1
	Dog off leash	1
Narrow turning spots in campground 1	Narrow turning spots in campground	1

Visitors were asked to rate how crowded they felt during this visit to Great Sand Dunes NM&PRES. As shown in Figure 42, most visitors group (56%) indicated that they did not feel crowded at all, 35% felt "somewhat crowded" and 1% felt "extremely crowded."

Opinions about level of crowding

If the visitors felt either "crowded," "very crowded," or "extremely crowded," they were asked where they felt crowded. As shown in Table 9, the places that visitor groups felt most crowded included the campground, visitor center, and four-wheel drive roads.

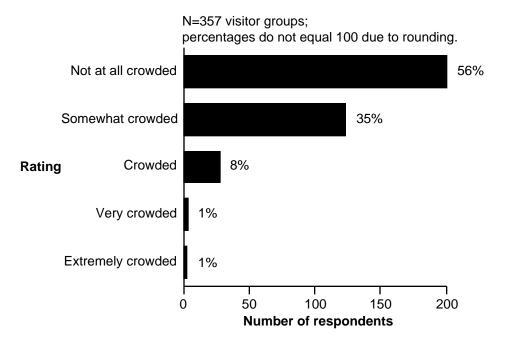


Figure 42: Crowded level

Table 9: Locations where visitors feel crowded N=40 comments, some visitor groups made than one comment.				
Comments	Number of times mentioned			
Campground	17			
Visitor center	9			
Four-wheel drive roads	4			
Dunes	3			
Picnic area by dunes	2			
Parking area	3			
Bottom of Medano Pass	1			
Point of No Return	1			

Opinions about how selected elements affected park experience Visitor groups were asked: "On this visit to Great Sand Dunes National Monument and Preserve, please indicate how the following elements may have affected your park experience." Table 10 lists the elements and shows how each element affected visitors' park experience. Among those elements, dogs (4%) were the element receiving the highest ratings of adding to visitors' experience. Lack of solitude (15%), dogs (7%), and noise (from airplanes, vehicles, radios, etc.) were the most common sources that detracted from visitors' experience. One "other" element affecting visitors' experience was the smoke from forest fires.

Table 10: Elements effect on visitors experience								
N= number of respondents;								
percentages may	not equ	ıal 100) due to	roundi	ng.			
Elements	Elements Affected to park experience							
	Added	d to	No effect		Detracted from		Did not experience	
	N	%	N	%	N	%	N	%
Noise (airplanes, vehicles, radios, etc.)	5	2	146	45	20	6	153	47
Horses	6	2	122	38	3	1	186	59
Dogs	12	4	144	46	21	7	139	44
Light pollution at night	2	1	87	29	11	4	198	66
Lack of solitude	7	2	146	46	46	15	117	37
Other	3	4	14	19	32	44	24	33

Visitor groups were asked, "On this visit to Great Sand Dunes National Monument and Preserve, did you and your group experience any parking problems?" Most visitor groups (99%) did not experience any parking problems (see Figure 43). One percent of visitor groups experienced parking problems. The parking problem was that parking lots were full at the dune access. Other places where visitors encountered parking problems were the visitor center, picnic area, and RV parking.

Parking

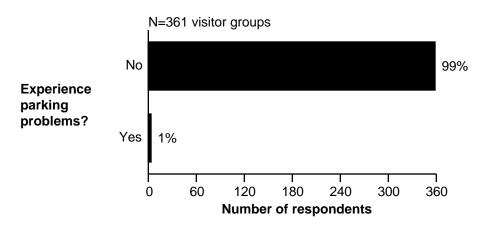


Figure 43: Parking

Visitor expectations

Visitors were asked if there was anything specific that they expected to see or do on this visit to Great Sand Dunes NM&PRES, but were unable to see or do. Figure 44 shows 30% of visitors had something that they were unable to see or do on this trip to Great Sand Dunes NM&PRES. Those visitors were then asked what they were unable to see or do. Their responses are listed in Table 11. Finally, visitors were asked what kept them from being able to see or do what they had expected. Their responses are listed in Table 12.

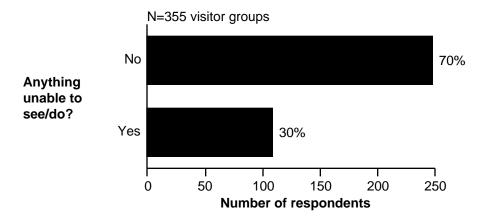


Figure 44: Visitor expectations

Table 11: Visitors' unmet expectations

N= 105 comments

Comments	Number of times mentioned
See and enjoy creek	38
Play/climb the dunes	22
See dunes closer up	6
Hiking on trails	6
Camp at night	5
Use bathroom/shower to wash off	4
Summit the dunes	4
Drive on 4-wheel road	4
Visit Zapata Falls	2
Visit visitor center	2
Access to drinking water	2
Take a good picture	1
Ranger show	1
Climb to highest peak	1
Watch moon-rise on dunes at night	1
Dune buggy	1
Wildlife viewing	1
Explore nature in backcountry by ATV	1

Table 12: Reasons for unmet expectations

 $\label{eq:N=102} N\text{= }102\text{ comments,}\\ \text{some visitor groups made more than one comment}$

Comment	Number of times mentioned
Do not have enough time	30
Drought conditions	31
Rain/thunderstorm/lightening	10
Personal mobility problem	4
Access point too far to walk	4
Poor visibility due to smoke from forest fires	3
Could not find location (poor map/guide book)	4
Poor handicapped access	2
Heat	2
Wind blew sand	2
Construction	2
Just bad luck	2
Dune buggy not permitted	1
Ranger show canceled	1
Too crowded	1
No other place to camp (except campground)	1
Too much traffic	1

Preferred learning methods for future visits

Visitor groups were asked how they would prefer to learn about natural and cultural history of the monument on a future visit to Great Sand Dunes NM&PRES. As shown in Figure 45, most visitor groups (72%) indicated a preference for printed materials. The next most preferred learning methods were audio-visual programs (50%), outdoor exhibits (50%), and roadside/trailside exhibits (48%). "Other" materials/experiences included dune buggy rides, hands-on activities for children, diagrams, and experiments with craft works.

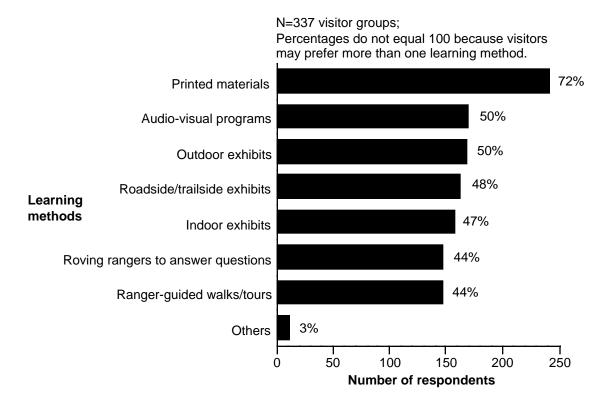


Figure 45: Preferred learning methods for future visits

Visitor groups were asked to note the visitor services and facilities they used during this visit to Great Sand Dunes NM&PRES. As shown in Figure 46, the services and facilities that were most commonly used by visitor groups were paved roads (87%), visitor center (80%), and visitor center restroom (76%). The least used service/facility was access for disabled persons (1%).

Visitor services and facilities: use, importance and quality

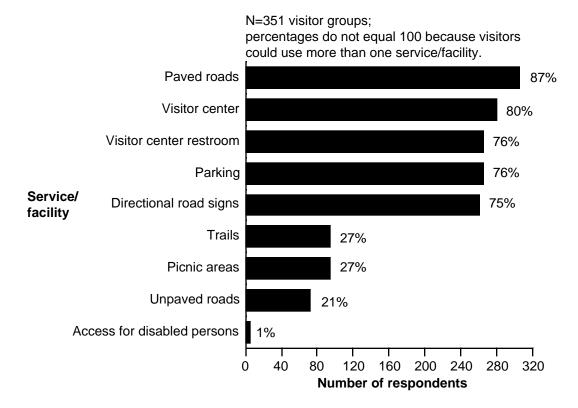


Figure 46: Services and facilities used

Visitor groups rate the importance and quality of each of the services and facilities that they used. The following scales were used in the questionnaire:

IMPORTANCE

- 5= extremely important
- 4= very important
- 3= moderately important
- 2= somewhat important
- 1= not important

QUALITY

- 5= very good
- 4= good
- 3= average
- 2= poor
- 1= very poor

Figures 47 and 48 show the average importance and quality ratings for visitor services and facilities. An average score was determined for each service based on ratings provided by visitors who used that service. This was done for both importance and quality, and the results are plotted on the grid shown in Figure 48. All services were rated as above "average" for both importance and quality. Note: access for disabled persons was not rated by enough people to provide reliable information.

Figures 49 to 57 show the importance ratings that were provided by visitor groups for each of the individual facilities and services. Those services/facilities receiving the highest proportion of "extremely important" or "very important" ratings included the visitor center restrooms (90%) and parking (85%). The highest proportions of "not important" ratings were unpaved roads (9%) and paved road (4%).

Figures 58 to 67 show the quality ratings that were provided by visitor groups for each of the individual facilities and services. Those facilities/services receiving the highest proportion of "very good" or "good" ratings included paved roads (93%), parking (91%), and visitor center restrooms (91%). The highest proportion of "very poor" ratings was for unpaved roads (5%).

Figure 68 combines the "very good" and "good" quality ratings and compares those ratings for all of the services/facilities.

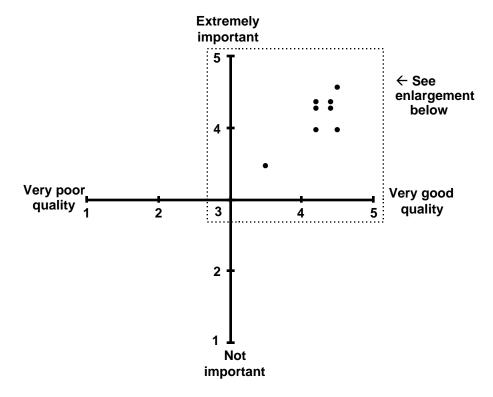


Figure 47: Average ratings of service importance and quality

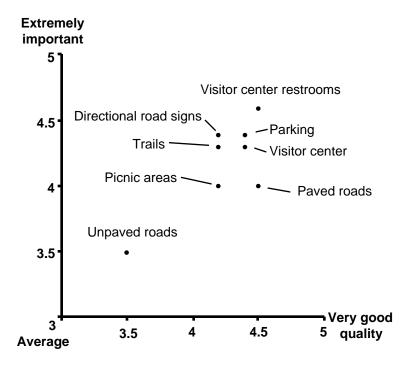


Figure 48: Detail of Figure 47

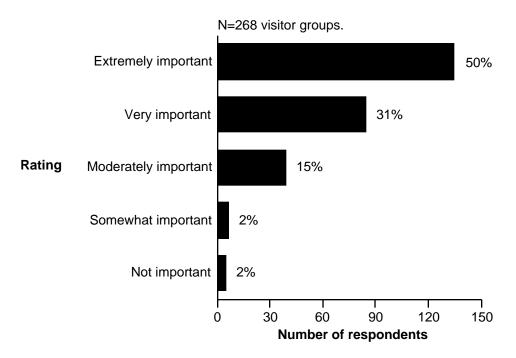


Figure 49: Importance of visitor center

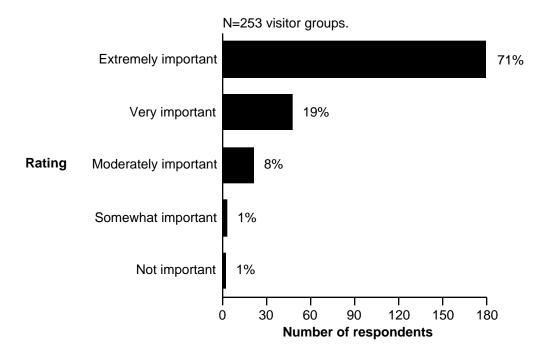


Figure 50: Importance of visitor center restroom

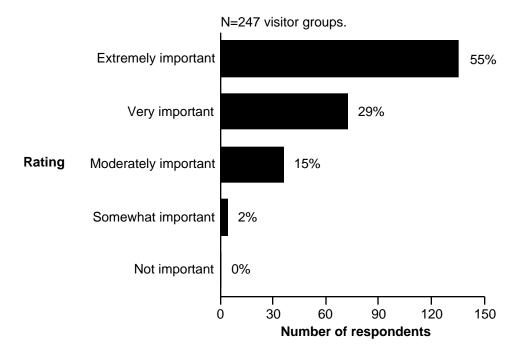


Figure 51: Importance of directional road signs

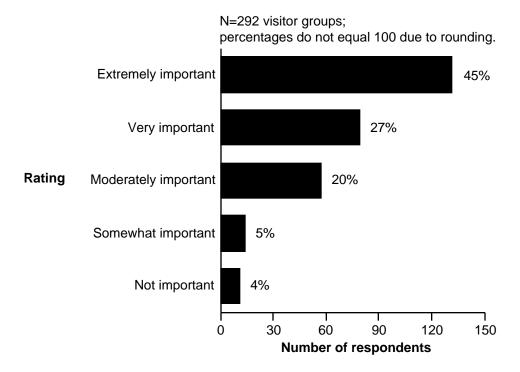


Figure 52: Importance of paved roads

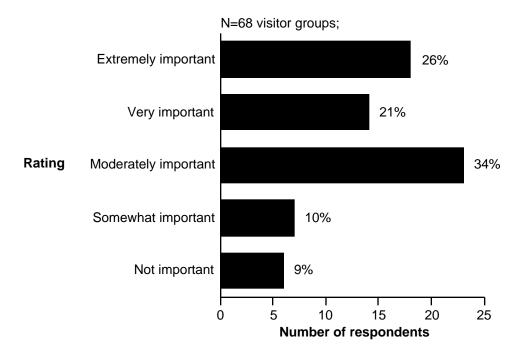


Figure 53: Importance of unpaved roads

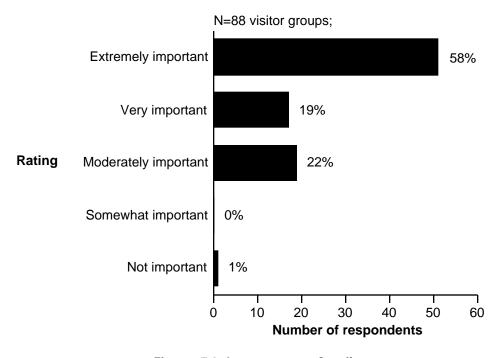


Figure 54: Importance of trails

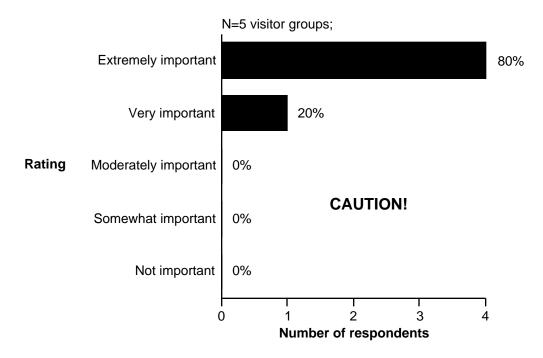


Figure 55: Importance of access for disabled persons

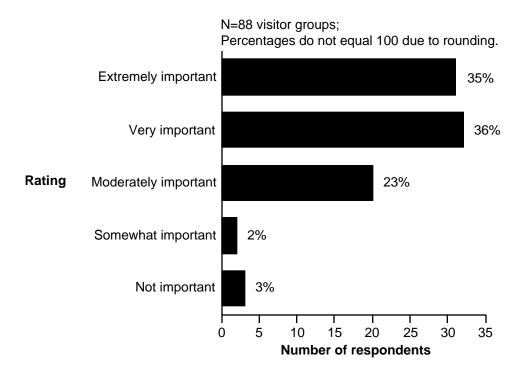


Figure 56: Importance of picnic areas

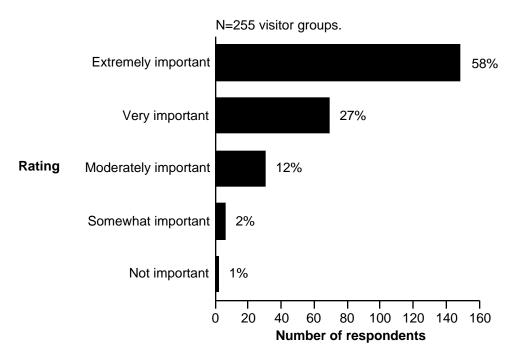


Figure 57: Importance of parking

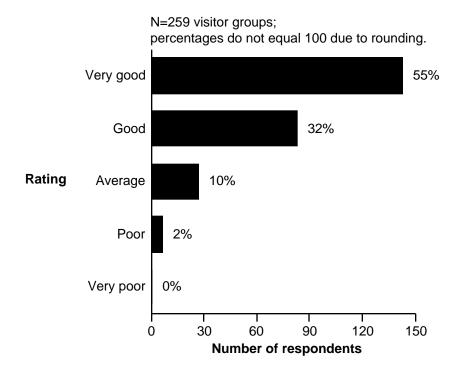


Figure 58: Quality of visitor center

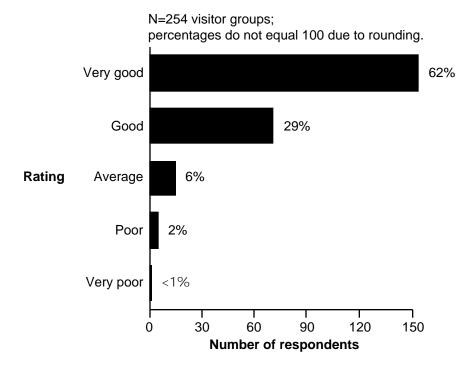


Figure 59: Quality of visitor center restroom

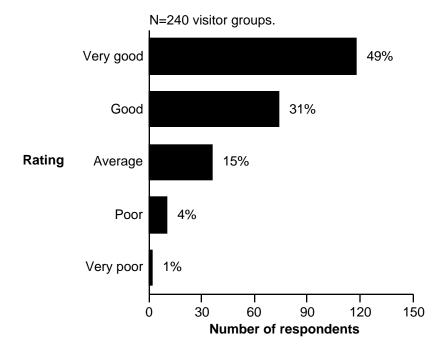


Figure 60: Quality of directional road signs

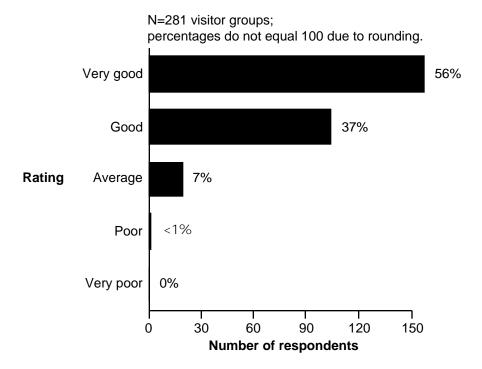


Figure 61: Quality of paved roads

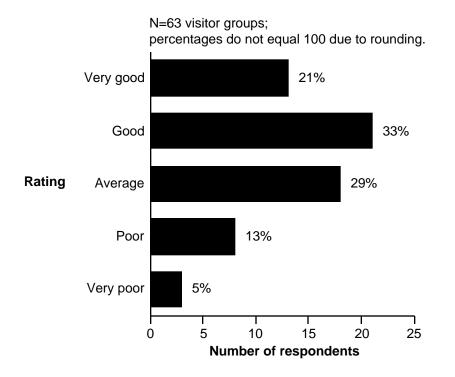


Figure 62: Quality of unpaved roads

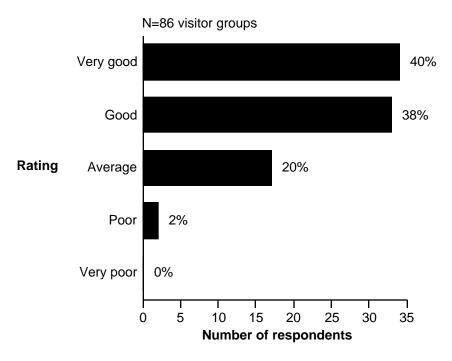


Figure 63: Quality of trails

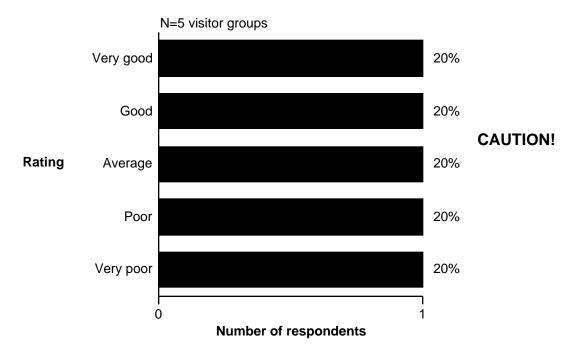


Figure 65: Quality of access for disabled persons

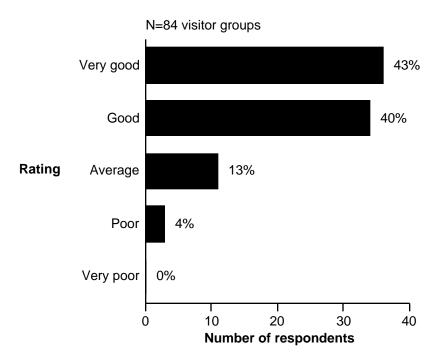


Figure 65: Quality of picnic areas

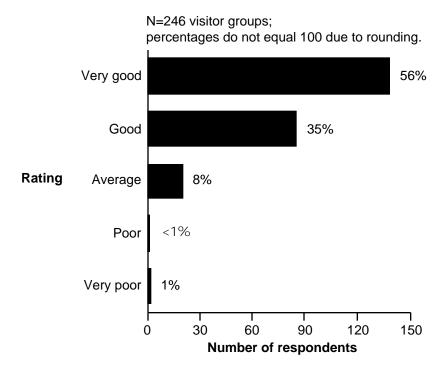


Figure 66: Quality of parking

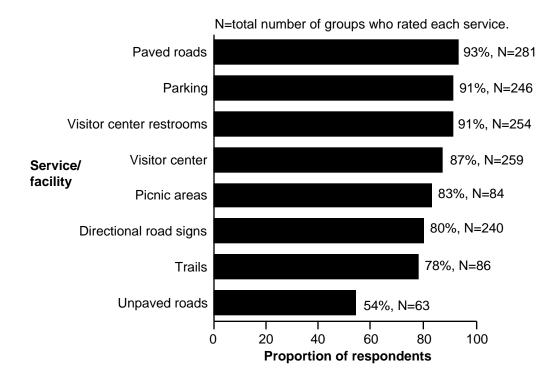


Figure 67 Combined proportions of "very good" or "good" quality ratings for monument services and facilities

Information services: use. importance and quality

Visitor groups were asked to note the information services and facilities they used during this visit to Great Sand Dunes NM&PRES. As shown in Figure 68, the services/facilities that were most commonly used were monument brochure/map (91%), visitor center (75%), and park newspaper (38%). The least used information service was junior ranger program (6%).

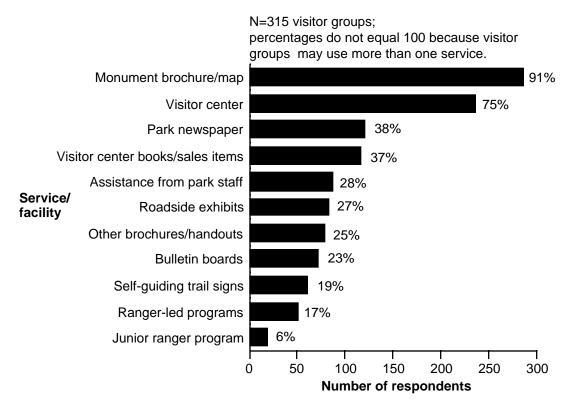


Figure 68: Information services/facilities used

Visitor groups rate the importance and quality of each of the services and facilities that they used. The following scales were used in the questionnaire:

IMPORTANCE

- 5= extremely important
- 4= very important
- 3= moderately important
- 2= somewhat important
- 1= not important

QUALITY

- 5= very good
- 4= good
- 3= average
- 2= poor
- 1= very poor

Figures 69 and 70 show the average importance and quality ratings for commercial services and facilities. An average score was determined for each service based on ratings provided by visitors who used that service. This was done for both importance and quality, and the results are plotted on the grid shown in Figure 70. All commercial services/facilities were rated as above "average" both importance and quality. Note: junior ranger programs were not rated by enough people to provide reliable information.

Figures 71 to 81 show the importance ratings that were provided by visitor groups for each of the individual facilities and services. Those services/facilities receiving the highest proportion of "extremely important" or "very important" ratings included assistance from park staff (92%), and visitor center (87%). The highest proportion of "not important" ratings was assistance from park staff (1%).

Figures 82 to 92 show the quality ratings that were provided by visitor groups for each of the individual facilities and services. Those facilities/services receiving the highest proportions of "very good" or "good" ratings include visitor center (91%), other park brochures/handouts (90%), and monument brochure/map (88%). The highest proportion of "very poor" was for assistance from park staff (2%).

Figure 93 combines the "very good" and "good" quality ratings and compares those ratings for all of the services/facilities.

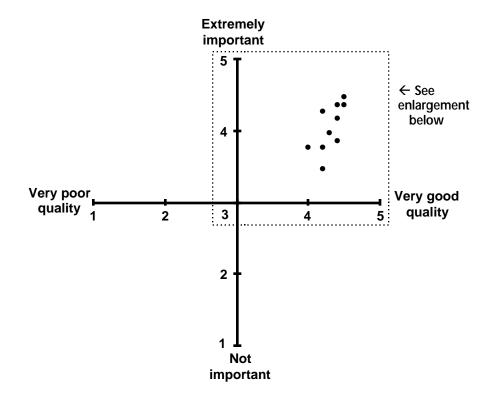


Figure 69: Average ratings of information services: importance and quality

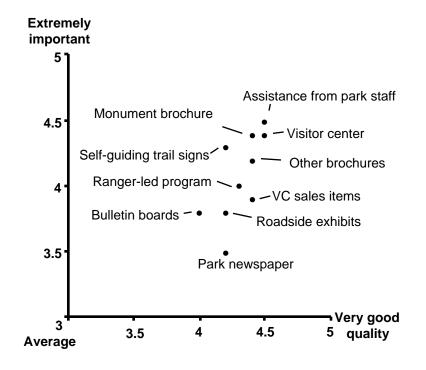


Figure 70: Detail of Figure 69

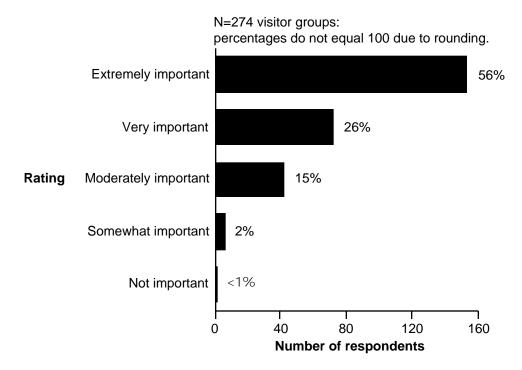


Figure 71: Importance of monument brochure/map

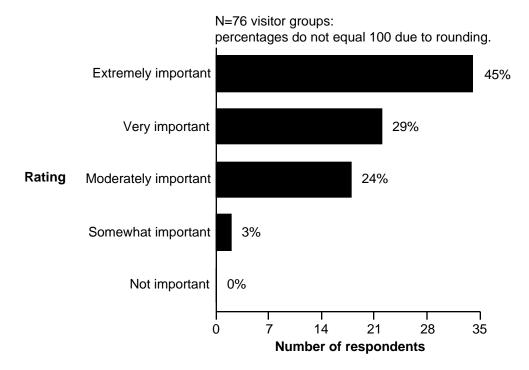


Figure 72: Importance of other park brochures/handouts

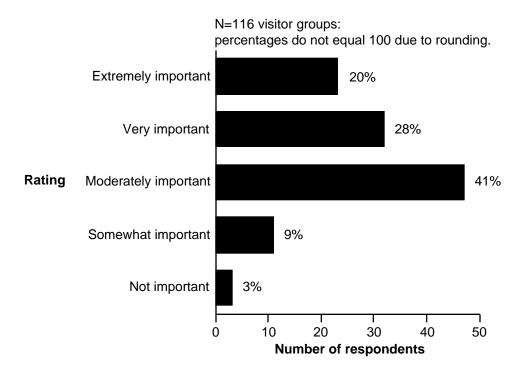


Figure 73: Importance of park newspaper

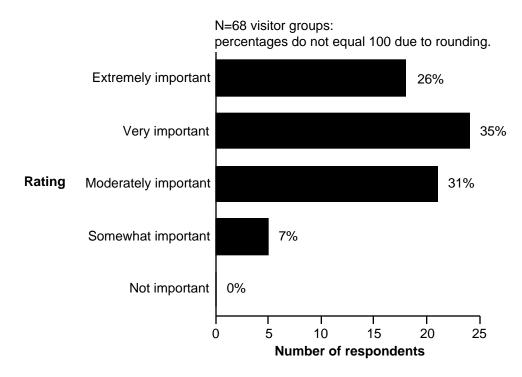


Figure 74: Importance of bulletin boards

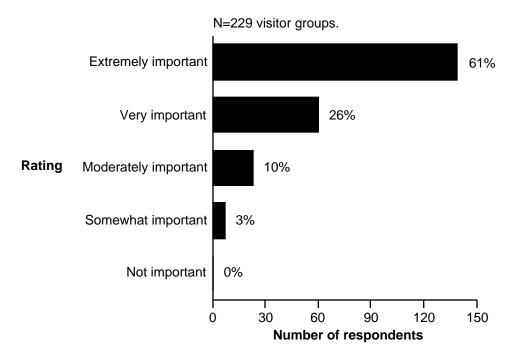


Figure 75: Importance of visitor center

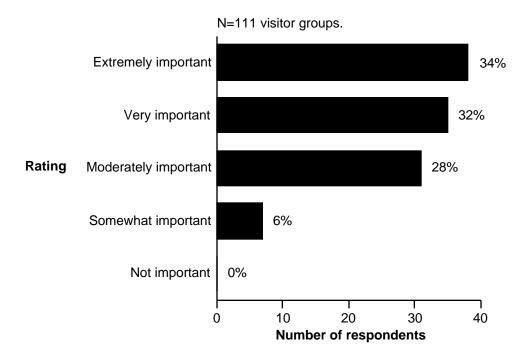


Figure 76: Importance of visitor center books/sales items

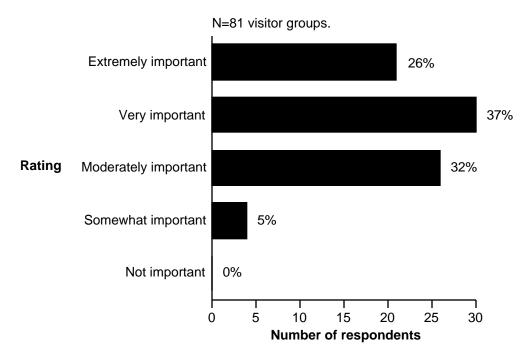


Figure 77: Importance of roadside exhibits

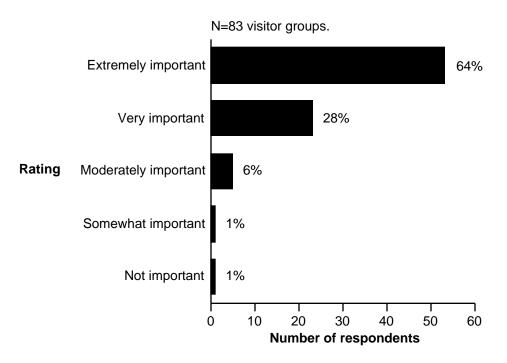


Figure 78: Importance of assistance from park staff

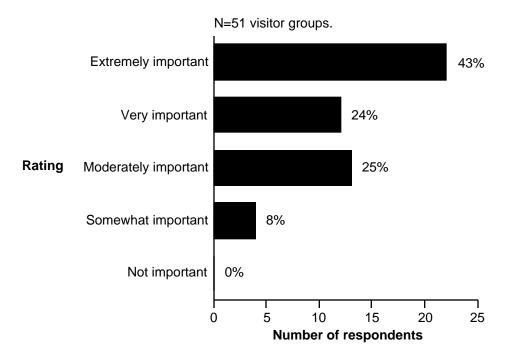


Figure 79: Importance of ranger-led programs

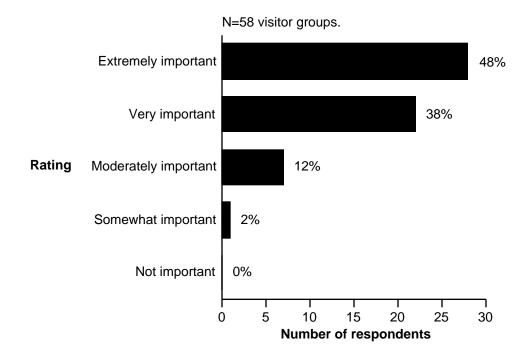


Figure 80: Importance of self-guided trail signs/brochure

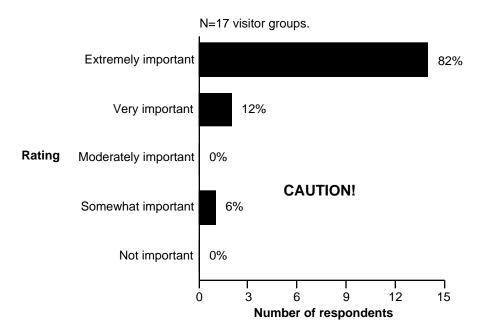


Figure 81: Importance of junior ranger program

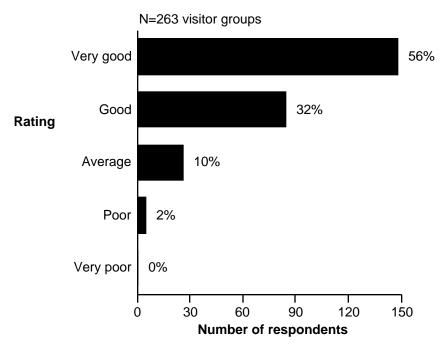


Figure 82: Quality of monument brochure/map

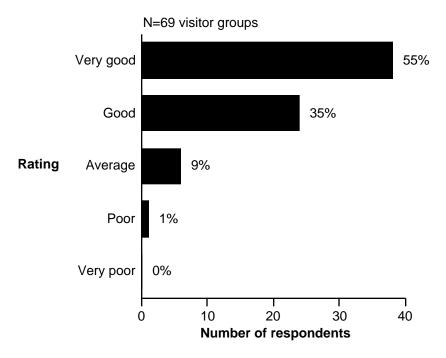


Figure 83: Quality of other park brochures/handouts

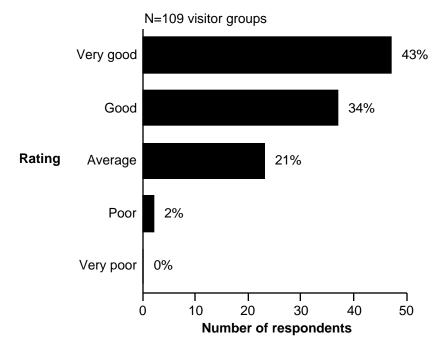


Figure 84: Quality of park newspaper

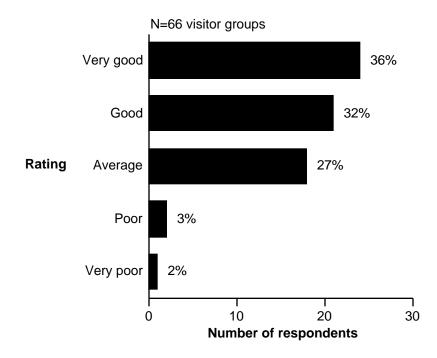


Figure 85: Quality of bulletin boards

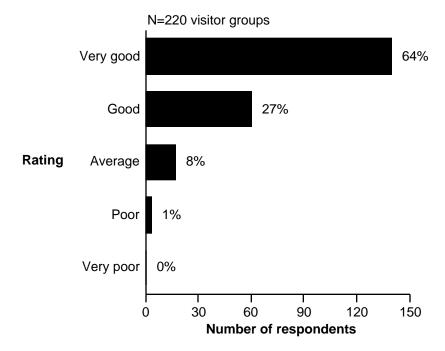


Figure 86: Quality of visitor center

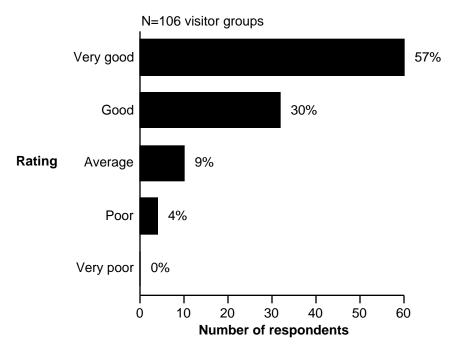


Figure 87: Quality of visitor center books/sales items

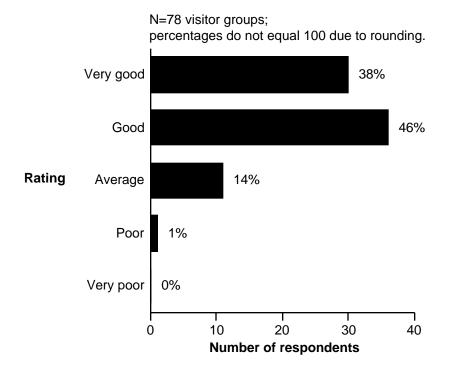


Figure 88: Quality of roadside exhibits

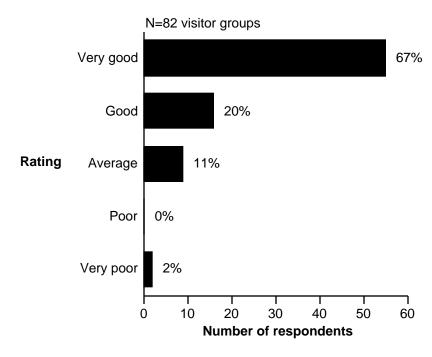


Figure 89: Quality of assistance from park staff

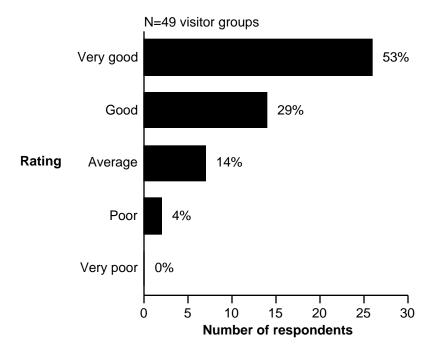


Figure 90: Quality of ranger-led program

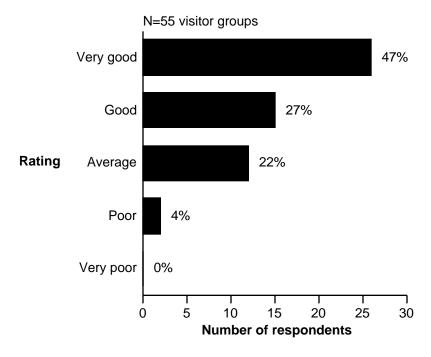


Figure 91: Quality of self-guiding trail signs/brochures

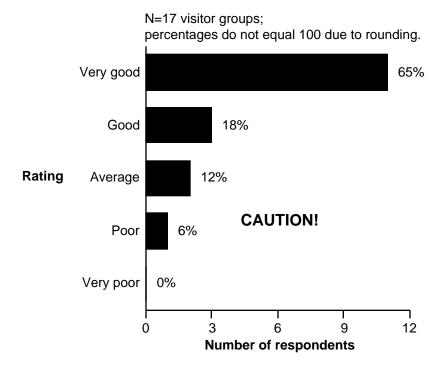


Figure 92: Quality of junior ranger program

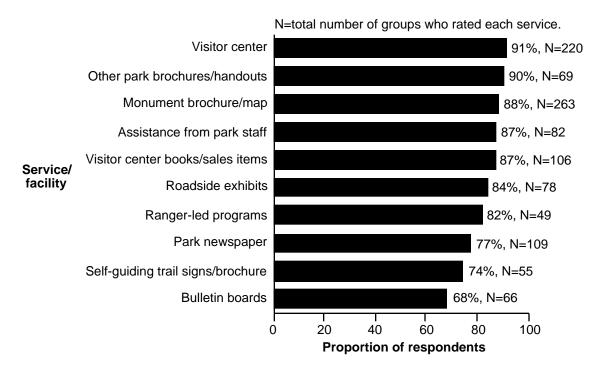


Figure 93: Combined proportions of "very good" or "good" quality ratings for information services

Visitor groups were asked to rate the overall quality of the visitor services provided at Great Sand Dunes NM&PRES during this visit. Most visitor groups (93%) rated services as "very good" or "good" (see Figure 94). No visitor groups rated the overall quality of services provided at Great Sand Dunes NM&PRES as "very poor."

Overall quality of visitor services

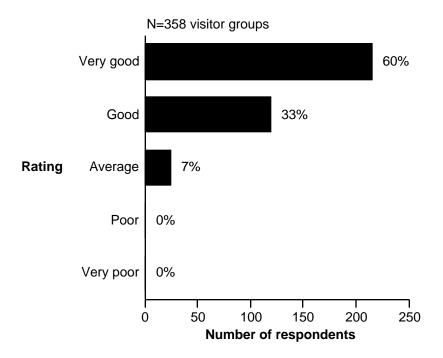


Figure 94: Overall quality of visitor services

What visitors liked most

Visitor groups were asked what they liked most about their visit to Great Sand Dunes NM&PRES. Eighty-six percent of visitor groups (312 groups) responded to this question. A summary of their responses is listed below in Table 13 and complete copies of visitor responses are contained in the appendix.

Table 13: What visitors liked most

N=390 comments; some visitors made more than one comment.

Comment	Number of times mentioned
PERSONNEL Very helpful and friendly staff	14
INTERPRETIVE SERVICES Rangers talks/tours were very interesting and info Learning about dunes Great visitor center Very informative exhibits/displays	ormative 13 11 9 6
FACILITIES/SERVICES Cleanliness of park Easy access to dunes Picnic area	9 8 2
RESOURCE MANAGEMENT Monument is well preserved and protected	4
GENERAL Natural beauty of area The dunes themselves Climbing dunes Hiking Uniqueness of dunes Quiet/solitude/peaceful environment Walking Camping Playing in sand Size of the dunes View from on top of dunes Everything Opportunity to enjoy as a family Photographing opportunities Observing wildlife Sliding down dunes Being outdoors A chance to get away and relax Four-wheel drive trip Location of dunes Zapata falls Interesting geology of area Playing in water Other comment	61 37 27 27 20 17 16 15 14 13 12 7 7 6 5 5 5 4 4 4 3 3 3 3

Visitors were also asked what they liked least about this visit to Great Sand Dunes NM&PRES. Sixty-nine percent of visitor groups (251 groups) responded. Their comments are summarized below (see Table 14).

What visitors liked least

Table 14: What visitor liked least

N=230 comments

	Number of
Comment	times mentioned
PERSONNEL Comment INTERPRETIVE SERVICES	1
Small visitor center with too few displays	4
FACILITIES & MAINTENANCE No running water supply No place to clean off sand No shaded area to wait/rest No showers Poor bathroom facilities Inaccessible walk to dunes for handicapped people No sign/material warning about weather conditions Trail signs somewhat confusing No snack bar or food services nearby No soap in restroom	14 7 7 7 6 5 4 3 2
POLICY It was too crowded, poor visitation control Enforce noise regulation at campground Should have litter control, too much trash on dunes Commercialized development of park	12 9 3 3
GENERAL IMPRESSIONS Hot weather/heat Smoke/haze from forest fires Drought—no water in creek Did not have enough time to enjoy it all Long/tiring walk to dunes Strong wind while climbing to top of dunes Bugs Rude visitors at parking lot People let dogs go unleashed Other comments	41 24 22 17 15 9 7 3 2

Planning for the future

Visitor groups were asked, "If you were a manager planning for the future of Great Sand Dunes NM&PRES, what would you propose?" Sixty-one percent of visitor groups (221 groups) responded to this question. A summary of their responses is listed below in Table 15 and complete copies of visitor responses are contained in the appendix.

Table 15: Planning for the future

N=273 comments; some visitors made more than one comment.

Number of Comment times mentioned **PERSONNEL** More rangers available to answer questions 4 **INTERPRETIVE SERVICES** Educate visitors about dunes history/geology/environment 12 More ranger led/talk programs 8 More visual displays/exhibits 6 More indoor activities/programs 4 Camel rides and demonstrations of desert life 2 Other comment 1 **FACILITIES/MAINTENANCE** More campsites with larger distance in between 16 Boardwalk/paved trail/easier access to dunes for handicapped people and small children 14 Add more primitive trails 13 Add water fountain or sell water bottles near dunes 13 Need more promotion/advertisement of park to public 12 Add electric hookups for RVs and larger units 10 Concession stand or snack bar 10 Add showers 8 7 Provide more paved roads Put up some shaded benches 7 Expand visitor center 6 More parking 6 Separate group campsites and family campsites 5 Better marked trails 5 Provide sled/sand buggies for rent 4 Provide water supply to clean off sand Put up warning signs at trailhead about heat protection/water 3 Add a pool in campground 2 Add mountain bike trail 2 Add amphitheater for star-gazing **POLICIES** 9 Limit daily access to dunes 8 Strictly limit/eliminate off-road vehicles Enforce litter control, keep it clean 5 Keep four-wheel drive trail open 4 No four-wheelers 3 3 Do not allow pets on dunes Other comment 1

Table 15: Planning for the future (continued)

Comment	Number of times mentioned
RESOURCE MANAGEMENT First priority is preservation and protection of natural reso Keep it as is Keep it as natural as possible No more commercialized development in park	
GENERAL IMPRESSIONS Use shuttle to minimize traffic in park Other comment	3 1

Comment summary

Thirty-six percent of visitor groups (131 groups) wrote additional comments, which are included in the separate appendix of this report. Their comments about Great Sand Dunes NM&PRES are summarized below (see Table 16). Some comments offer specific suggestions on how to improve the park; others describe what visitors enjoyed or did not enjoy about their visit.

Table 16: Additional comments

N= 149 comments

N= 149 COMMENTS	
	Number of
Comment	times mentioned
PERSONNEL Rangers friendly and helpful Staff very pleasant Rangers not knowledgeable about surrounding area Other comments	7 7 2 2
INTERPRETIVE SERVICES Should have more scientific information about history Need more advertisement/publications about dunes Very good displays at visitor center Educate about importance of water Other comment	of dunes 5 2 2 2 2 1
FACILITIES & MAINTENANCE Need signs at trailhead/parking lot warning people to bring water and protection Very well kept Good restrooms Good campground Need soap in bathrooms	3 5 2 2 2
POLICY Do not make the park global Do not add new road People should not be allowed to walk on dunes	1 1 1
RESOURCE MANAGEMENT Unique area that should be preserved	5
GENERAL IMPRESSIONS Enjoyable Will come back and spend more time Visit was too short Fascinating Our favorite destination It was beyond our expectations Beautiful Great place for family vacation	57 15 7 5 4 3 3

Great Sand Dunes National Monument and Preserve Visitor Study Additional Analysis VSP Report 134

The Visitor Services Project (VSP) staff offers the opportunity to learn more from VSP visitor study data.

Additional Analysis

Additional analysis can be done using the park's VSP visitor study data that was collected and entered into the computer. Two-way and three-way cross tabulations can be made of any of the characteristics listed below. Be as specific as possible-you may select a single program/service/facility instead of all that were listed in the questionnaire. Include your name, address and phone number in the request.

- Source of information-this visit
- · Source of information-future visits
- Receive needed information?
- GRSA as destination
- Sites accessed by hiking/horseback-this visit
- Sites accessed by hiking/ horseback-past visits
- Sites accessed by automobilethis visit
- Sites accessed by automobilepast visits
- Awareness of preserve prior to visit
- Facilities/uses appropriate in new monument area
- Awareness of wilderness prior
- Wilderness designation affect experience?
- Importance of solitude in visiting wilderness
- Activities
- · Other places visited
- Length of stay
- Stay overnight away from home?

- Number of nights in monument
- Number of nights outside monument
- Type of lodging in monument
- Type of lodging outside monument
- Number of times entered monument
- Group type
- Age
- State/country of residence
- Number of visits in past 12 months (including this visit)
- Number of visits in lifetime
- Group size
- Visitors with disabilities/impairments?
- Type of disability/impairment
- Encounter access/service problems Unmet visitor expectations? in park?
- Hispanic/Latino
- Race

- Learn about interpretive topics-this visit?
- Interpretive topics learned-this visi
- Understanding improvement?
- Safety concerns-this visit?
- Level of crowding-this visit
- Use of visitor services/facilities
- Importance of visitor services/ facilities
- Quality of visitor services/facilities
- Use of information services
- Importance of information services
- Quality of information services
- Elements' effect on park experience
- Experience parking problems?
- Preferred language to speak/write
 Preferred learning method about park topics
 - · Overall quality of services

Phone/send requests to:

Visitor Services Project, PSU College of Natural Resources

Resource Recreation & Tourism Department

University of Idaho P.O. Box 441139

Moscow, Idaho 83844-1139

Phone: 208-885-7863 FAX: 208-885-4261

Email: littlej@uidaho.edu

QUESTIONNAIRE

Visitor Services Project Publications

Reports 1-6 (pilot studies) are available from the University of Idaho Park Studies Unit. All other VSP reports listed are available from the parks where the studies were conducted or from the UI CPSU. All studies were conducted in summer unless otherwise noted.

1982

 Mapping interpretive services: A pilot study at Grand Teton National Park.

1983

- Mapping interpretive services: Identifying barriers to adoption and diffusion of the method.
- 3. Mapping interpretive services: A follow-up study at Yellowstone National Park and Mt Rushmore National Memorial.
- 4. Mapping visitor populations: A pilot study at Yellowstone National Park.

1985

- North Cascades National Park Service Complex
- 6. Crater Lake National Park

1986

- 7. Gettysburg National Military Park
- 8. Independence National Historical Park
- 9. Valley Forge National Historical Park

1987

- Colonial National Historical Park (summer & fall)
- 11. Grand Teton National Park
- 12. Harpers Ferry National Historical Park
- 13. Mesa Verde National Park
- 14. Shenandoah National Park
- 15. Yellowstone National Park
- Independence National Historical Park: Four Seasons Study

1988

- 17. Glen Canyon National Recreational Area
- 18. Denali National Park and Preserve
- 19. Bryce Canyon National Park
- 20. Craters of the Moon National Monument

1989

- 21. Everglades National Park (winter)
- 22. Statue of Liberty National Monument
- 23. The White House Tours, President's Park (summer)
- 24. Lincoln Home National Historical Site
- 25. Yellowstone National Park
- 26. Delaware Water Gap National Recreation Area
- 27. Muir Woods National Monument

1990

- 28. Canyonlands National Park (spring)
- 29. White Sands National Monument
- 30. National Monuments, Washington, D.C.
- 31. Kenai Fjords National Park
- 32. Gateway National Recreation Area
- 33. Petersburg National Battlefield
- 34. Death Valley National Monument
- 35. Glacier National Park
- 36. Scott's Bluff National Monument
- 37. John Day Fossil Beds National Monument

1001

- 38. Jean Lafitte National Historical Park (spring)
- 39. Joshua Tree National Monument (spring)
- 40. The White House Tours, President's Park (spring)
- 41. Natchez Trace Parkway (spring)
- 42. Stehekin-North Cascades NP/Lake Chelan National Recreation Area
- 43. City of Rocks National Reserve
- 44. The White House Tours, President's Park (fall)

1992

- 45. Big Bend National Park (spring)
- 46. Frederick Douglass National Historic Site (spring)
- 47. Glen Echo Park (spring)
- 48. Bent's Old Fort National Historic Site
- 49. Jefferson National Expansion Memorial
- 50. Zion National Park
- 51. New River Gorge National River
- 52. Klondike Gold Rush National Historical Park (AK)
- 53. Arlington House-The Robert E. Lee Memorial

1993

- 54. Belle Haven Park/Dyke Marsh Wildlife Preserve (spring)
- 55. Santa Monica Mountains National Recreation Area (spring)
- 56. Whitman Mission National Historic Site
- 57. Sitka National Historical Park
- 58. Indiana Dunes National Lakeshore (summer)
- 59. Redwood National Park
- 60. Channel Islands National Park
- 61. Pecos National Historical Park
- 62. Canyon de Chelly National Monument
- 63. Bryce Canyon National Park (fall)

Visitor Services Project Publications (continued)

1994

- Death Valley National Monument Backcountry (winter)
- 65. San Antonio Missions National Historical Park (spring)
- 66. Anchorage Alaska Public Lands Information Center
- 67. Wolf Trap Farm Park for the Performing Arts
- 68. Nez Perce National Historical Park
- 69. Edison National Historic Site
- 70. San Juan Island National Historical Park71. Canaveral National Seashore
- 72. Indiana Dunes National Lakeshore (fall)
- 73. Gettysburg National Military Park (fall)

1995

- 74. Grand Teton National Park (winter)
- 75. Yellowstone National Park (winter)
- 76. Bandelier National Monument
- 77. Wrangell-St. Elias National Park & Preserve
- 78. Adams National Historic Site
- 79. Devils Tower National Monument
- 80. Manassas National Battlefield Park
- 81. Booker T. Washington National Monument
- 82. San Francisco Maritime National Historical Park
- 83. Dry Tortugas National Park

1996

- 84. Everglades National Park (spring)
- 85. Chiricahua National Monument (spring)
- 86. Fort Bowie National Historic Site (spring)
- 87. Great Falls Park, Virginia (spring)
- 88. Great Smoky Mountains National Park
- 89. Chamizal National Memorial
- 90. Death Valley National Park (fall)
- 91. Prince William Forest Park (fall)

1997

- 92. Great Smoky Mountains National Park (summer & fall)
- 93. Virgin Islands National Park (winter)
- 94. Mojave National Preserve (spring)
- 95. Martin Luther King, Jr., National Historic Site (spring)
- 96. Lincoln Boyhood Home National Memorial
- 97. Grand Teton National Park
- 98. Bryce Canyon National Park
- 99. Voyageurs National Park
- 100. Lowell National Historical Park

1998

- 101. Jean Lafitte National Historical Park & Preserve (spring)
- 102. Chattahoochee River National Recreation Area (spring)

1998 continued

- 103. Cumberland Island National Seashore (spring)
- 104. Iwo Jima/Netherlands Carillon Memorials
- 105. National Monuments & Memorials, Washington, D.C.

1998

- 106. Klondike Gold Rush National Historical Park (AK)
- 107. Whiskeytown National Recreation Area
- 108. Acadia National Park

1999

- 109. Big Cypress National Preserve (winter)
- 110. San Juan National Historic Site (Puerto Rico)
- 111. Saint Croix National Scenic Riverway
- 112. Rock Creek Park
- 113. New Bedford Whaling National Historical Park
- 114. Glacier Bay National Park & Preserve
- 115. Kenai Fjords National Park & Preserve
- 116. Lassen Volcanic National Park
- 117. Cumberland Gap National Historic Park (fall)

2000

- 118. Haleakala National Park (spring)
- 119. White House Tour and White House Visitor Center (spring)
- 120. USS Arizona Memorial
- 121. Olympic National Park
- 122. Eisenhower National Historic Site
- 123. Badlands National Park
- 124. Mount Rainier National Park

2001

- 125. Biscayne National Park (spring)
- 126. Colonial National Historical Park (Jamestown)
- 127. Shenandoah National Park
- 128. Pictured Rocks National Lakeshore
- 129. Crater Lake National Park
- 130. Valley Forge National Historical Park

2002

- 131. Everglades National Park (spring)
- 132. Dry Tortugas National Park (spring)
- 133. Pinnacles National Monument (spring)
- 134. Great Sand Dunes National Monument & Preserve

For more information about the Visitor Services Project, please contact the University of Idaho Park Studies Unit; phone (208) 885-7863.